### AFSC 2A0X1P

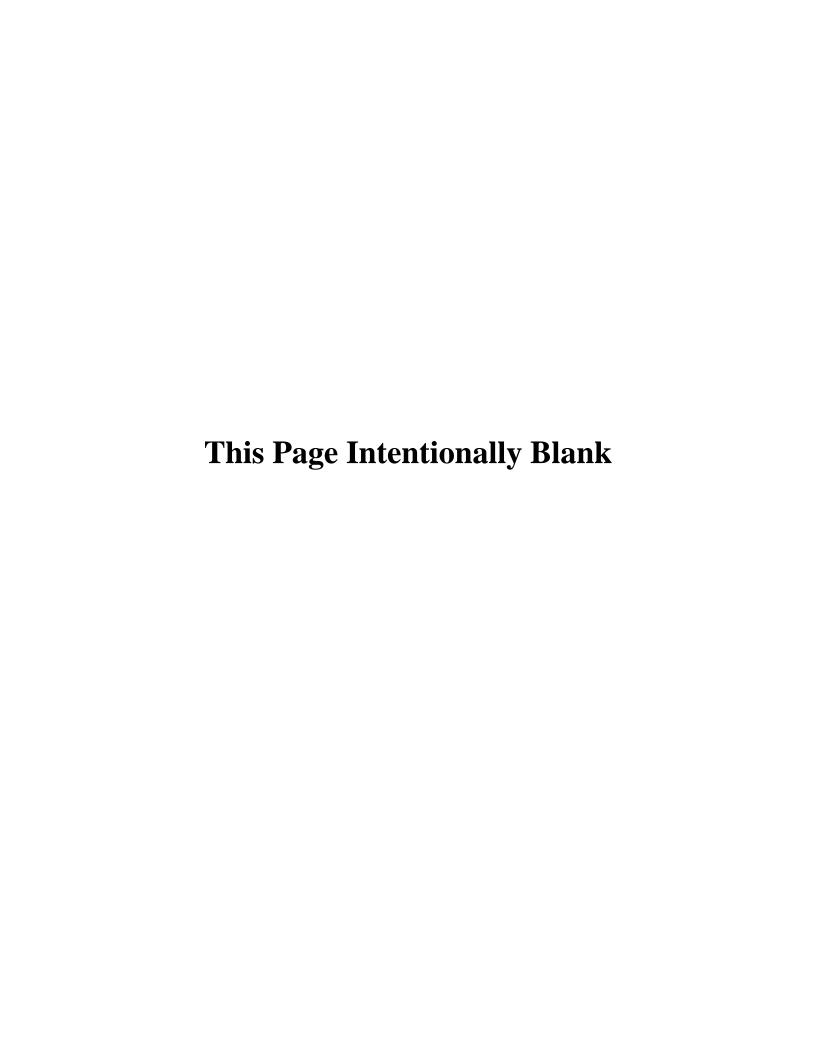
# AVIONICS SENSORS AND ELECTRONIC WARFARE SYSTEMS



# CAREER FIELD EDUCATION AND TRAINING PLAN

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#### CAREER FIELD EDUCATION AND TRAINING PLAN AVIONICS SENSORS AND ELECTRONIC WARFARE SYSTEMS AFSC 2A0X1P

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# AVIONICS SENSORS AND ELECTRONIC WARFARE SYSTEMS CAREER FIELD EDUCATION AND TRAINING PLAN AFSC 2A0X1P

#### **PART I**

#### **PREFACE**

- 1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education/training requirements, training support resources, and minimum core task requirements for 2A0X1P, Avionics Sensors and Electronic Warfare Systems Specialty. The CFETP will provide personnel a clear career path to success and instill rigor in all aspects of career field training. This CFETP supersedes 2A0X1P CFETP dated 1 October 2008. The official CFETP can be found at the Air Force E-Publishing website: <a href="http://www.e-publishing.af.mil/">http://www.e-publishing.af.mil/</a>. NOTE: Civilians occupying associated positions will use Part II to support duty position qualification training.
- **2**. **CFETP Parts.** The CFETP consists of two parts. Supervisors will use both parts to plan, manage, and control training.
- **2.1** Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan. Section B identifies career field progression information, duties and responsibilities, training strategies, and career field path. Section C associates each level with specialty qualifications (knowledge, education, training, and other). Section D indicates resource constraints to accomplishing this plan, such as funds, manpower, equipment, and facilities. Section E identifies transition training plans for the career field.
- 2.2. Part II includes the following: Section A provides an explanation of AETC course objectives and trained proficiency levels. Section B identifies available support materials, such as Qualification Training Package (QTP), which may be developed to support proficiency training. Section C identifies a training course index that supervisors can use to determine if resources are available to support training. Included here are both mandatory and optional courses. Section D identifies MAJCOM unique training requirements supervisors can use to determine additional training required for the associated qualification needs. At unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan. Section E identifies the Specialty Training Standard (STS) and includes duties, tasks, technical references to support training, Air Education and Training Command (AETC) conducted training, wartime course/core task, and Career Development Course (CDC) requirements.

#### ABBREVIATIONS/TERMS EXPLAINED

**Advanced Training**. Formal course, which provides individuals who are qualified in their Air Force Specialty (AFS) with additional skills/knowledge to enhance their expertise in the career field. Training is for selected career airmen at the advanced level of an AFS.

**Air Force Job Qualification Standard (AFJQS).** A comprehensive task list that describes a particular job type or duty position. Supervisors use the AFJQS to document task qualifications. The AFJQS tasks are common to all persons serving in the described duty position.

**Bridge Course.** A formal or informal course, which allows the individual to expand his/her knowledge in another area of expertise.

**Career Development Course (CDC)--**Self-study correspondence course to provide Airmen with fundamental knowledge of their AFS.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive, multipurpose document covering the entire spectrum of education and training for a career field. It outlines a logical growth plan that includes training resources and is designed to make career field training identifiable, eliminate duplication, and ensure this training is budget defensible.

**Certification.** A formal indication of an individual's ability to perform a task to required standards.

**Certification Official** – A person authorized by appropriate commander to determine an individual's ability to perform a task to required standards.

**Continuation Training**. This is additional training that exceeds minimum upgrade requirements and has an emphasis on present or future duty assignments.

**Core Task.** Tasks that the Air Force Career Field Manager (AFCFM) identifies as minimum qualification requirements within an Air Force Specialty.

Course Training Standard (CTS). A formal course document that identifies in board terms the training members will receive in a specific course.

**Enlisted Specialty Training (EST).** A mix of formal AETC training and On-The-Job (OJT) training designed to qualify and upgrade Airmen in each skill level of a specialty.

**Exportable Training.** Additional training via computer assisted, paper text, interactive video or other necessary means to supplement training.

**Go/No Go Level.** In OJT, the stage at which an individual has gained enough skill, knowledge and experience to either be qualified to perform an identified task without assistance or cannot perform the task without assistance.

**Field Technical Training (Type 4).** Special or regular on-site training conducted by a Training Detachment (TD) or by a Mobile Training Team (MTT).

**Initial Skills Training.** A formal school course that results in the award of a 3-skill level AFSC.

**Instructional System Development (ISD).** A deliberate and orderly process for developing, validating, and reviewing instructional programs that ensures personnel are taught the knowledge and skills essential for successful job performance.

**Maintenance Information System (MIS).** Systems and applications that support and enable maintenance business processes. Used to document maintenance actions. Provides maintenance supervisors with products to evaluate organizational effectiveness and aid in decision-making processes at all levels.

**Maintenance Supply Liaison (MSL).** Monitors overall maintenance and supply interface, resolves supply support problems, and coordinates supply-related training needs.

**Master Task Listing (MTL).** Document maintained within the work-center that identifies all tasks performed in a work-center. This includes core, critical position qualification and wartime tasks. This document can be automated.

**Master Training Plan.** A comprehensive work-center training plan that may include MTLs, QTPs, AFJQS, CFETP, task breakdowns, commercial publications and any other document that supports training.

**Mobile Training Team (MTT).** Instructors, trainers, training aids and operational equipment that formal schools send to bases or operating locations used to perform formal training.

**Occupational Analysis Report (OAR).** A detailed report showing the results of an occupational survey of tasks performed within a particular AFS.

**On-the-Job Training (OJT).** Hands-on, over-the-shoulder training at the duty location used to certify personnel for both skill level upgrade and duty position qualification.

**Plan of Instruction (POI).** An AETC course document used for course planning, organization, operation and validation. It provides course objectives, level of training provided, planned times, sequence of instruction, required resources and specifies how course objectives are measured.

**Position Qualification Training.** Training designed to qualify an airman in a specific position and is accomplished after upgrade training.

**Proficiency Training.** Additional training either in residence or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

**Qualification Training (QT).** Actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skill/knowledge training required to do the job.

**Qualification Training Package (QTP).** An instructional course designed for use at the unit to qualify or aid qualification in a duty position or program or on a piece of equipment. It may be printed, computer based, or in other audiovisual media.

**Resource Constraints.** Resource deficiencies such as money, facilities, time, manpower, or equipment that preclude desired training from being accomplished.

**Specialty Training Standard (STS).** An Air Force document that is published as an attachment to the appropriate CFETP that describes an Air Force Specialty in terms of tasks and knowledge an airman may be expected to perform or to know on the job. It serves as a contract between AETC and the functional user to show which of the overall training requirements for an AFSC are taught in formal schools, Career Development Courses (CDC), and exportable courses.

**Supplemental Training.** Formal, standardized training within an AFS that is in addition to required initial skills training and skill level upgrade training. It may support new/newly assigned equipment, methods, and/or technology.

Task Certifier. See Certification Official

**Training Business Area (TBA).** Net-Centric, GCSS-AF IF Web-Based application providing Air Force Warfighters with global, real-time visibility into the technical qualifications, certifications and training status of logistics, communications and information professionals Air Force wide. TBA supports base, wing and work center level training management activities by automating training management business processes. The primary users of TBA will be any personnel directly involved in base level training management and certification activities. TBA is being developed and maintained by 754th Electronic Systems Group, Installation and Logistics, Maintenance Flight (754 ELSG/ILM) at Maxwell-Gunter AFB.

**Training Detachment (TD)**. An AETC detachment that provides maintenance oriented technical training, at an operational location, on specific systems including their aerospace ground equipment or in new equipment techniques and procedures. A TD qualifies personnel to maintain proficiency, increase skill and knowledge, acquaint personnel with specific systems and keep personnel aware of changing concepts and requirements.

**Training Setting.** The type of forum in which training is provided (formal resident school, on-the-job, field training, mobile training team, self-study, etc.).

**Upgrade Training (UGT).** A mixture of mandatory courses, task qualification, QTPs, and CDCs required for award of the 3-, 5-, 7-, or 9-skill levels.

**Utilization and Training Workshop** (U&TW). A forum that is convened and chaired on a recurring basis by the AF Career Field Manager (AFCFM), designed to review the appropriate CFETP and its attachments. The purpose is to ensure currency, accuracy and completeness of content, to include specific formal career ladder training requirements. Workshops are co-chaired by AETC Training Pipeline Manager and include MAJCOM Air Force Specialty Code (AFSC) Functional Managers, AETC training personnel and Subject Matter Experts (SMEs).

#### PART I

#### SECTION A - GENERAL INFORMATION

- 1. Purpose. This CFETP provides the information necessary for the AFCFM, MFMs, commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the training that individuals in this AFS should receive in order to develop and progress throughout their career. This plan identifies initial skills, upgrade, qualification, advanced and proficiency training. The CFETP also:
- **1.1.** Lists training courses available in the specialty, identifies sources of training and the training delivery method.
- **1.2.** Identifies major resource constraints that impact full implementation of the desired career field training process.
- **2.** Use of the CFETP: This plan will be used by MFMs and supervisors at all levels to ensure comprehensive and cohesive training programs are available for each individual in the specialty.
- **2.1.** AETC training personnel will develop/revise formal resident, non-resident, Training Detachment (TD), and exportable training based upon requirements established by the users and documented in Part II of the CFETP. They will also work with the AFCFM to develop acquisition strategies for obtaining the resources needed to provide the identified training.
- **2.2.** MFMs will ensure their training programs complement the CFETP mandatory initial, upgrade, and proficiency requirements. OJT, resident training, contract training, or exportable courses can satisfy these identified requirements. MAJCOM developed training to support this AFSC must be identified for inclusion in this plan and must not duplicate other available training resources.
- **2.3.** Each individual will complete the mandatory training requirements specified in this plan. The list of courses in Part II will be used as a reference to support training.
- **3. Coordination and Approval of the CFETP.** The AFCFM is the approval authority for the CFETP. The AETC training manager for AFSC 2A0X1P will initiate an annual review of this document by AETC and MFM to ensure currency and accuracy. The using MAJCOM representatives and AETC training personnel will identify and coordinate on the career field training requirements. Using the list of courses in Part II, they will eliminate duplicate training.

#### SECTION B - CAREER FIELD PROGRESSION AND INFORMATION

- 4. Specialty Descriptions.
- **4.1**. **Specialty Summary.** Performs and manages avionics test station functions and activities. Operates, inspects, maintains, programs, and calibrates computer and manually operated avionics test equipment, support equipment (SE), and aircraft avionics systems components. Related DoD Occupational Subgroup: 119800.

- **4.2. Duties and Responsibilities:** Refer to the Air Force Enlisted Classification Directory (AFECD) <a href="https://gum-crm.csd.disa.mil/app/home">https://gum-crm.csd.disa.mil/app/home</a>, and "Search the Knowledge Base" with "AFECD".
- **4.2.1.** Avionics Sensor and Electronic Warfare Systems Apprentice and Journeyman: Analyzes performance and isolates malfunctions of avionics test equipment, SE, and aircraft components. Performs operational tests on test equipment, SE, and aircraft components to determine condition, analyze performance, and isolate malfunctions in the radar, sensors, communications, weapons control, electronic warfare (EW), and flight control and engine control systems. Traces logic, schematic, test flow, and wiring diagrams. Uses self-test and software functions, computer and manually operated avionics test equipment, SE, and test measurement and diagnostic equipment to determine the scope of repair and adjustment required. Inspects, maintains, programs, and calibrates avionics equipment, SE, and aircraft components. Removes and replaces assembly components using hand tools, soldering devices, and electronic instruments. Repairs EW systems and pods, sensor systems and components, wiring harnesses and interconnecting cables. Services, replaces, and cleans filtration and cooling components, and performs maintenance on test stations and avionics SE. Repairs amplifier and logic circuits; microwave equipment; servomechanisms; radio frequency circuits; video displays; and power supply circuits. Loads computer programs. Aligns, calibrates, and modifies avionics test equipment, SE, and aircraft components
- **4.2.2. Avionics Sensor and Electronic Warfare Systems Craftsman:** Manages integrated avionics activities and complies with directives, policies, and procedures. Complies with maintenance standards. Initiates deficiency reports, maintenance analysis documents, technical data changes, and equipment records. Interprets, establishes, and complies with training, security, and safety standards. Ensures compliance with directives governing handling, use, and disposal of hazardous waste and material. Records information on data collection forms/automated systems. Directs and controls maintenance, calibration, and inspection of integrated avionics test stations and aircraft components. Plans and organizes integrated avionics equipment assembly, calibration, repair, modification, and maintenance activities. Plans physical layout of facilities, and ensures SE and spare parts availability.
- **4.2.3. Maintenance Superintendent:** Manages and directs maintenance functions and activities. Included are areas of avionics sensors, communications and navigation, guidance and control, airborne warning and control radar, inertial and radar navigation, airborne command post communication systems, avionics test stations, electronic warfare (EW) systems, and avionics support equipment. Related DoD Occupational Subgroup: 110200.
- **5.** Career Skill Progression. It is essential that everyone involved in training do their part to plan, develop, manage, and conduct an effective training program. The guidance provided in this part of the CFETP will ensure each individual receives viable training at appropriate points in their career.
- **5.1. Apprentice (3-level):** Upon completion of initial skills training, a trainee will work with a trainer to enhance their knowledge and skills. They will utilize the Career Development Courses, Qualification Training, and available exportable courses for continued advancement. Once task certified, a trainee may perform the task unsupervised. Apprentices can be considered for appointment as unit trainers.

- **5.2. Journeyman (5-level).** Individuals must complete formal 5-level OJT training. This training involves completion of the 2A051P CDCs, as well as completion of all identified core task qualification training and any other required duty position training. Upgrade requires qualification on only one pod. Completion of Advanced Wiring Maintenance Course J4AMP30000 A48A PDS Code ZIZ per the MAJCOM Mandatory Course List (MMCL) (ANG/AFRC exempt) is also required for 5-level upgrade. Not applicable to personnel assigned to locations where the course is not yet available at the local Field Training Detachment (FTD). Journeymen may be assigned job positions such as quality assurance and various staff positions. Journeymen will be considered for appointment as unit trainers after completion of the Air Force Training Course. Individuals will use their CDCs to prepare for promotion testing. They should also consider continuing their education toward a Community College of the Air Force (CCAF) degree.
- **5.3. Craftsman (7-level):** Individuals must complete formal 7-level OJT training. This training involves completion of the 2A071P and the 2AX7X CDCs, as well as completion of all identified core task qualification training and any other required duty position training. A 7-level can expect to fill various supervisory and management positions such as shift leader, element chief, flight/section chief, and task certifier. They can also be assigned to work in staff positions. Craftsmen should take courses to obtain added knowledge on management of resources and personnel. Continued academic education through CCAF and higher degree programs is encouraged. Shred identifiers and SEI codes are provided in the ECD
- **5.4. Superintendent (9-level):** A 9-level can be expected to fill positions such as flight chief, production supervisor, and various staff NCOIC jobs. Additional training in the areas of budget, manpower, resources, and personnel management should be pursued through continuing education. Additional higher education and completion of courses outside their career AFSC are also recommended. The AFSC shred is removed at the 9-skill level, at which point airframe qualifications are identified by Special Equipment Identifier (SEI) codes. Shred identifiers and SEI codes are provided in the ECD
- **6. Training Decisions:** The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Avionics Sensor and Electronic Warfare Systems Career Field. The spectrum includes a strategy for when, where, and how to meet these training requirements. The strategy must be apparent and affordable training to reduce duplication of training and eliminate a disjointed approach to training. The following training decisions were made by MAJCOM Functional Managers and Subject Matter Experts (SMEs) at the career field Utilization and Training Workshop held at Sheppard AFB, 5-13 April 2012.
- **6.1. Initial Skills:** The working group was tasked with reviewing the entire Specialty Training Standard of the 2A0X1P career field. Each STS line item was evaluated based on ability and method of training, redundancy of documentation and applicability. OAR data was used to scrub requirements to determine whether items were suited for formal training. LANTIRN and PAVE PENNY training was removed from the 3-level awarding courses and numerous performance and alignment tests were added to the training. The new 2A031P initial skills course is estimated to be 56 days in length.
- **6.2. Five-Level Upgrade Training:** The 5-level CDCs will consist of four volumes. Completion of Advanced Wire Maintenance Course J4AMP30000 A48A PDS Code ZIZ. Upgrade requirements also include completion of core tasks and identified work center requirements for their assigned weapons system.

- **6.3. Seven-Level Upgrade Training**. Completion of the 2AX7X CDC is required. Airmen in upgrade training for 2A0X1P 7-level will be task qualified on all core tasks and identified work center requirements for their assigned weapons system.
- 7. **Higher Education and Advanced Certification Opportunities.** Higher education and advanced certification is a personal choice that is encouraged for the professional development of the entire Enlisted Force. Listed below are some current opportunities:
- **7.1** Community College of the Air Force (CCAF) Academic Programs. Enrollment in CCAF occurs upon completion of basic military training (BMT). CCAF provides the opportunity to obtain an Associate in Applied Sciences Degree. In addition to its associate degree program, CCAF offers the following:
- **7.1.1. CCAF Instructor Certification.** CCAF offers the CCAF Instructor Certification (CIC) Program for qualified instructors who teach CCAF collegiate-level credit awarding courses at a CCAF affiliated school. The CIC is a professional credential that recognizes the instructor's extensive faculty development training, education and qualification required to teach a CCAF course, and formally acknowledges the instructor's practical teaching experience. Qualified officer, enlisted, civilian and other service instructors are eligible for this certification.
- **7.1.2. Professional Manager Certification (PMC) Program**. CCAF offers the PMC for qualified senior Air Force enlisted personnel who have demonstrated an advanced level of professional accomplishment. The purpose of the certification is to recognize the individual's outstanding education and training required to lead and manage Air Force personnel and critical national defense assets. The certification also formally acknowledges the individuals management qualifications and experience. Qualified Air Force enlisted personnel are eligible for this certification. To learn more and enroll in the program, visit CCAF's website at <a href="http://www.au.af.mil/au/ccaf/certifications.asp">http://www.au.af.mil/au/ccaf/certifications.asp</a>.
- **7.1.3. FAA Airframe and Power plant (A&P) Certification.** CCAF offers the Air Force A&P Certification Program for active duty, guard and reserve aircraft maintenance technicians in specific AFSCs. The program is designed to bridge gaps between Air Force education, training and experience and FAA eligibility requirements per Title 14, Code of Federal Regulations (CFR), Part 65.77. The program benefits the Air Force by broadening the skill sets and professional development of our technicians, producing a more skilled and diverse aircraft maintenance professional. The program directly supports the mission of CCAF in that FAA certification of our aircraft maintenance technicians enhances combat readiness, contributes to recruiting and retention and supports career transition of highly skilled technicians. To learn more and enroll in the program, visit CCAF's website at <a href="http://www.au.af.mil/au/ccaf/certifications.asp">http://www.au.af.mil/au/ccaf/certifications.asp</a>.
- **7.1.4.** Other Certification Programs. CCAF is actively pursuing other licensure and certification opportunities related to specific career fields. To learn more about other certification opportunities visit CCAF's website at <a href="http://www.au.af.mil/au/ccaf/certifications.asp">http://www.au.af.mil/au/ccaf/certifications.asp</a>.
- **7.2. Degree Requirements:** All airmen are automatically entered into the CCAF program. Prior to completing an associate's degree, the 5-level must be awarded and the following requirements must be met:

	Semester Hours
Technical Education	24
Leadership, Management, and Military Studies	6
Physical Education	4
General Education	
Program Elective	15
Technical Education; Leadership, Management, and Military	
Studies; or General Education	
Total	64

- **7.2.1. Technical Education (24 Semester Hours):** A minimum of 12 semester hours of Technical Core subject courses must be applied and the remaining semester hours are applied from Technical Core/Technical Elective courses.
- **7.2.2.** Leadership, Management, and Military Studies (6 Semester Hours): Professional military education and/or civilian management courses.
- **7.2.3. Physical Education (4 Semester Hours):** This requirement is satisfied by completion of Basic Military Training.
- **7.2.4. General Education (15 Semester Hours):** Courses must meet the definition of General Education subjects/courses as provided in the CCAF General Catalog.
- **7.2.5. Program Electives (15 Semester Hours):** Satisfied with applicable Technical Education; Leadership, Management, and Military Studies; or General Education subjects/courses, including natural science courses meeting general education application criteria. Six semester hours of CCAF degree-applicable technical credit otherwise not applicable to this program may be applied. See the *CCAF General Catalog* for details regarding the Associates of Applied Science for this specialty.
- **7.3. AETC Instructor Requirements:** Additional off-duty education is a personal choice that is encouraged for all. Individuals desiring to become an AETC Instructor must possess as a minimum an associate degree or should be actively pursuing an associate degree. Special Duty Assignment (SDA) requires an AETC instructor candidate to have a CCAF degree or be within one year of completion (45 semester hours). A degreed faculty is necessary to maintain accreditation through the Southern Association of Colleges and Schools.

#### **8.** Career Path: Table **8.1** identifies career milestones for the 2A0X1 Air Force Specialty.

Table 8.1	Enlisted (	Career Path		
			ade Requiren	nents
<b>Education and Training Requirements</b>	Rank	Average	Earliest	High Year Of Tenure
		Sew-On	Sew-On	(HYT)
<b>Basic Military Training School</b>				
<b>Apprentice Technical School</b> (3-Skill Level)	Amn	6 months		
	A1C	16 months		
<b>Upgrade To Journeyman</b> (5-Skill Level)				
- Minimum 12 months on-the-job training.	Amn	6 months		
- Minimum 9 months on-the-job training for	Allin AlC	16 months	28 months	8 Years
retrainees.	SrA	3 years	20 months	o rears
- Complete all 5-level core tasks on one MDS.	5171	3 years		
- Complete appropriate CDC if/when available.				
Airman Leadership School (ALS)				
- Must be a SrA with 48 months time in service				
or be a SSgt Selectee.				
- Resident graduation is a prerequisite for SSgt				
sew-on (Active Duty Only).			~	
<u>Trainer</u>	D . 1	1 :11 1	<u>Certifier</u>	1'.C' 1 1 4'.C' 1
- Qualified and certified to perform the task to				qualified and certified
be trained.			being certified	
- Must attend formal OJT Trainer Course			Trainer Course	was and four AECCs duty
				except for AFSCs, duty as with specialized
	_			cation requirements.
Upgrade To Craftsman (7-Skill Level)	tranning	standardizat		
- Minimum rank of SSgt.				
- Minimum 12 months on-the-job training.				
- Minimum 6 months on-the-job training for				
retrainees.	SSgt	5.1 years	3 years	10 Years
- Complete all 5- and 7-level core tasks on one	228	J 2 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3	5 5 5 5 5 5	
mission design aircraft.				
- Complete appropriate CDC if/when available.				
- Attend Craftsman course, if applicable.				
Noncommissioned Officer Academy (NCOA)	TSgt	11.1 years	5 years	20 Years
- Must be a TSgt or TSgt Selectee.			-	
- Resident graduation is a prerequisite for MSgt				
sew-on (Active Duty Only).	MSgt	16.8 years	8 years	24 Years
USAF Senior NCO Academy				
(SNCOA) - Must be a MSgt, or SMSgt				
Selectee.	SMSgt	21 years	11 years	26 Years
- Resident graduation is a prerequisite for				
SMSGT sew-on.				
The same de Tre Companies to a 4 (0 Claim I a 1)		1	ı	İ
<b>Upgrade To Superintendent</b> (9-Skill Level) - Minimum rank of SMSgt.	CMSgt	24 years	14 years	30 Years

#### SECTION C - SKILL LEVEL TRAINING REQUIREMENTS

**9. Purpose.** Skill level training requirements in this career field are defined in terms of tasks and knowledge requirements. This section outlines the specialty qualification requirements for each skill level in broad, general terms and establishes the mandatory requirements for entry, award, and retention of each skill level. The specific tasks and knowledge training requirements are identified in Part II, Section E, Specialty Training Standard (STS).

#### 10. Specialty Qualification Requirements:

- 10.1. Knowledge. Knowledge is mandatory of: electrical theory and electronic fundamentals, including solid-state, binary, digital, octal, and hexadecimal numbering systems; metrology principles; Boolean algebra; computer logic, and programming principles and language; printed circuitry; microwave, radar, and electronic warfare principles; microminiature solid state devices; operating principles of avionics components supported by test stations; electrically actuated mechanical device theory; operating principles of basic measuring and testing devices; interpreting schematic, logic, data flow, and wiring diagrams; interpreting programming tables and technical publications; using, caring for, and applying special, standard, and common hand tools; interpreting testing, measuring, and referencing devices; concepts and application of applicable maintenance directives; Air Force supply procedures; and use and disposal of hazardous waste and material
- 10.2. Education. For entry into this specialty, completion of high school is desirable with courses in physics, algebra, trigonometry, and computer principles.
- 10.3. Training. The following training is mandatory for award of the AFSC indicated:
- 10.3.1. 2A031P. Completion of the avionics fundamentals (if applicable) and the apprentice avionics systems course for the applicable suffix.
- 10.3.2. 2A051P. Completion of applicable Field Training Detachment (FTD) course(s) listed on the CAF Mandatory Course List (MCL) IAW AFI 36-2232, *Maintenance Training*. For award of AFSC 2A051K/M/P completion of Advanced Wire Maintenance Course J4AMP30000 A48A PDS Code ZIZ is mandatory per MMCL and as it becomes available locally at FTD.
- 10.3.3. 2A071P. Completion of the 2AX7X CDC.
- 10.4. Experience. The following experience is mandatory for award of the AFSC indicated:
- 10.4.1. 2A051P. Qualification in and possession of AFSC 2A031P. Also, experience in functions such as identifying performance and isolating malfunctions encountered with avionic components; using and repairing avionic electrical, electronic, and mechanical equipment; or aligning and calibrating avionic test stations and SE.
- 10.4.2. 2A071P. Qualification in and possession of AFSC 2A051P. Also, experience performing or supervising functions such as installing, maintaining, or inspecting avionics systems.
- 10.5. Other. The following are mandatory as indicated.

- 10.5.1. For entry into this specialty: Normal color vision as defined in AFI 48-123, *Medical Examinations and Standards*.
- 10.5.2. For award and retention of AFSCs 2A051P/71P, must maintain an Air Force Network License according to AFI 33-115, Vol 2, *Licensing Network Users and Certifying Network Professionals*.
- 10.5.3. Specialty requires routine access to Secret material or similar environment. For award and retention of AFSCs 2A0X1/X, completion of a current National Agency Check, Local Agency Checks and Credit (NACLC) according to AFI 31-501, *Personnel Security Program Management*.

**NOTE:** Award of the 3-skill level without a completed NACLC is authorized provided an interim Secret security clearance has been granted according to AFI 31-501.

#### 11. Training Sources:

- 11.1 Apprentice Level Training: The initial skills courses will provide the required knowledge and qualification training. Training encompasses basic electronic principles, system theory and operation, system components and component removal and installation. Additionally, introduction to maintenance concepts, general flight line maintenance practices, use of technical publications, maintenance documentation, and support equipment are provided.
- 11.2 Journeyman Level Training: The 5-level CDC provides the career knowledge training required. Qualification training and OJT will provide training and qualification on the core tasks identified in the STS. The CDC is written to build from the trainee's current knowledge base, and provides more in-depth knowledge to support OJT requirements.
- 11.3 Craftsman Level Training: Seven-level upgrade training will be conducted by certified trainers using AF core tasks and unit/MAJCOM specific courses. The 7-level CDCs are written to provide advanced, management and supervisory knowledge, and troubleshooting skills.
- 11.4. Superintendent Level Training (9-Level). This AFSC becomes shredless at the 9-skill level. Unit OJT will be used for training. In addition to 7-level qualifications, an individual must possess advanced skills and knowledge of concepts and principles in the management of aircraft maintenance. The 9-level needs to be an effective leader; must be able to forecast, budget and manage funds and other resources; and must be knowledgeable of federal and local environmental standards and ensure adherence to the proper handling and disposal of hazardous materials.

#### SECTION D - RESOURCE CONSTRAINTS

12. Purpose: This section of the CFETP identifies known resource constraints, which preclude optimum and desired training from being developed or conducted, including information such as cost and manpower. Narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training are included. Also included in this section are actions required, office of primary responsibility, and target completion dates. Resource constraints will be, as a minimum, reviewed and updated annually.

- 13. Apprentice Level Training. No resource constraints identified.
- 14. Journeyman Level Training. No resource constraints identified.
- 15. Craftsman Level Training. No resource constraints identified.

 $SECTION\ E-TRANSITIONAL\ TRAINING\ GUIDE$ - There are no transitional requirements this area is reserved.

#### PART II

#### **Section A - Course Objective List**

- 1. Introduction. Each proficiency coded STS task or knowledge item taught at the technical school is measured through the use of an objective. An objective is a written instruction for the student so he or she knows what is expected of them to successfully complete training on each task. Each objective is comprised of a condition, behavior, and standard that states what is expected of the student for each task. The condition is the setting in which the training takes place (i.e. TOs, type of equipment, etc). The behavior is the observable portion of the objective (i.e. perform an operational check). The standard is the level of performance that is measured to ensure the STS proficiency code level is attained (i.e. "with no more than two instructor assists").
- 2. Objective Measurement. Each objective uses letter codes(s) to identify how it is measured. All objectives using the **PC** code indicate a progress check is used to measure subject or task knowledge. **W** indicates a comprehensive written test and is used to measure the subject or task knowledge at the end of a block of instruction. **PC/W** indicates a subject or task knowledge progress check and a separate measurement of both knowledge and performance elements using a written test.
- 3. Objective Standard. The standard for written examinations is 70%. Standards for performance objectives are indicated in the objective and are also indicated on the individual progress check checklist. The checklist is used by the instructor to document each student's progress, on each task. Instructor assistance is provided as needed during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained. Students must satisfactorily complete all PCs prior to taking the written test.
- 4. Proficiency Level. Review column 4A of the STS to determine the proficiency level of a particular task or knowledge item. Review the proficiency code key in Part II, Section A of this CFETP for an explanation of the proficiency codes. Most task performance is taught to the '2b' proficiency level which means the students can do most parts of the task, but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step-by-step procedures for doing the task.

**Section B - Support Material.** There are currently no support material requirements. This area is reserved

#### Section C - Training Course Index

**5. Purpose.** This index lists mandatory formal training including Air Force in-residence, field, ECI, and exportable courses used to support training for this specialty. Refer to Education and Training Course Announcements, for information on AETC formal courses listed below at <a href="https://etca.randolph.af.mil/">https://etca.randolph.af.mil/</a>.

365 TRS/TRR 609 9th Ave Rm 135 Sheppard AFB, TX 76311-2338 DSN 736-7901

#### 6. Air Force In-Resident Courses.

COURSE NO.	COURSE TITLE	LOCATION	OPR
J3ABR2A031P048A	Avionics Sensors and	Sheppard AFB	365 TRS/TRR
	Electronic Warfare Systems		DSN 736-7901
J3AZR2A051P048A	AN/ALQ 184	Sheppard AFB	365 TRS/TRR
			DSN 736-7901
J3AZR2A051P148A	AN/ALQ 131	Sheppard AFB	365 TRS/TRR
			DSN 736-7901

## 7. Extension Course Program, AU/A4L, Courses (CDCs) website: http://www.au.af.mil/au/afiadl/.

COURSE NO.	COURSE TITLE	USER
CDC 2A051P	Avionic Sensor and Electronic Warfare Systems	365 TRS/TRR
	Journeyman	
CDC 2AX7X	Aerospace Maintenance Craftsman	365 TRS/TRR

#### Section D - MAJCOM Unique Requirements.

The Combat Air Forces Mandatory Course Listing (CAF/MCL) identifies mandatory maintenance training requirements for initial technical school graduates, retrainees, and personnel with no experience on assigned mission design series (MDS) aircraft. It also ensures maintenance personnel receive training commensurate to their current duty position. All CAF/MCL courses will be identified as a priority on the AF Form 898. The CAF/MCL applies to ACC, AETC, USAFE and PACAF personnel/units. The CAF/MCL does not apply to Air National Guard (ANG) or Air Force Reserve Command (AFRC) members and units. However, it does apply to Total Force integrated units (Active Duty personnel assigned to Guard bases). The CAF/MCL is posted to the ACC/A4Q CoP at web site (under "Document Management"): https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-TE-AC-42.

#### Section E – SPECIALITY TRAINING STANDARD

- **8. Implementation:** The STS will be used for technical training provided by Air Education and Training Command for classes beginning January 2013. The STS is organized in attachments to this document for "General" training requirements (applicable to all MDS), and individual attachments for each MDS, Pods and Avionics Fundamentals.
- **9. Purpose:** As prescribed in AFI 36-2201, this STS (Refer to applicable attachments):
- **9.1.** Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airmen to perform duties in the 3-, 5-, and 7-skill level. All task/knowledge taught in the initial skills courses will be taught in the wartime initial skills courses.
- **9.2.** Identifies in column 2 (Core Tasks), by asterisk (\*), specialty-wide training requirements. Certification on all shop/flightline core tasks applicable to at least one Mission Design Series (MDS)

aircraft assigned must be completed for skill level upgrade. When a base has multiple MDSs or blocks assigned, trainees are only required to complete core task training on MDSs or blocks assigned to their unit of assignment.

- **9.3.** Column 3 provides certification for OJT. It is used to record completion of tasks and knowledge training requirements. Use automated training management systems to document technician qualifications, if available. Task certification must show a certification/completed date.
- **9.4.** Column 4 (Proficiency Codes) show formal training and correspondence course requirements and shows the proficiency to be demonstrated on the job by the graduate as result of training on the task/knowledge and the career knowledge provided by the correspondence course. When two codes are used in columns 4A and 4B (e.g. 2b/b), the first code is the established requirement for resident training on the task/knowledge, and the second code indicates the level of training provided in the course due to equipment shortages or other resource constraints. See CADRE/AFSC/CDC listing maintained by the unit-training manager for current CDC listing.
- **10. Qualitative Requirements:** Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.
- 11. Job Qualification Standard: The STS becomes a job qualification standard (JQS) for on-the-job training when placed in AF Form 623, On-The-Job Training Record, and used according to AFI 36-2201. For OJT, the tasks in column 1 are trained and qualified to the go/no go level. "Go" means the individual can perform the task without assistance and meets local requirements for accuracy, timeliness, and correct procedures. When used as a JQS, the following requirements apply:
- **11.1 Documentation.** Document and certify completion of training IAW AFI 36-2201. Automated records, utilizing MIS reflecting this STS is highly encouraged
- **11.1.1. Transcribing from Old CFETP to New CFETP.** All AFJQSs and previous CFETPs are replaced by this CFETP; therefore, transcribing of all training records to this CFETP STS is mandatory. Use this CFETP STS (or automated STS) to identify and certify all past and current qualifications. Document and certify all previous and current training IAW AFI 36-2201.
- **12. Specialty Knowledge Tests (SKT).** The STS serves as a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). SKTs are developed at the USAF Occupational Measurement Squadron, by Senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS catalog. Individual responsibilities are in AFI 36-2502, *Airman Promotion Program*. WAPS is not applicable to the Air National Guard or Air Force Reserve.
- **13. Recommendations**: Report, through the Graduate Assessment Survey, unsatisfactory performance of individual course graduates to the AETC Training Manager at 365 TRS/TRR, 609 9<sup>th</sup> Avenue Rm. 135, Sheppard AFB, TX 76311-2335, DSN 736-7901. Please reference specific STS paragraphs.

#### BY ORDER OF THE SECRETARY OF THE AIR FORCE

**OFFICIAL** 

JUDITH A. FEDDER, Lt General, USAF DCS/Logistics, Installations & Mission Support

#### Attachments: 9

- 1. Proficiency Code Key (Mandatory)
- 2. General Training Requirements (Mandatory)
- 3. Sensor System Maintenance
- 4. LANTIRN
- 5. AN/ALQ 131 POD
- 6. AN/ALQ 184 POD
- 7. AN/ALQ 188A POD
- 8. Avionics Fundamentals (Mandatory)
- 9. 2AX7X CDC Requirements (Mandatory)

#### **Proficiency Code Key**

CFETP 2A0X1P

This Block Is For Identification Purposes Only										
Name Of Trainee:										
Printed Name (Last, First, Middle Initial)	Initials (Written)	SSAN (last 4 only)								
Printed Name Of Training/Certifying Official And Written Initials										
N/I	N/I									
N/I	N/I									
N/I	N/I									
N/I	N/I									
N/I	N/I									
N/I	N/I									
N/I	N/I									

QUALITATIVE REQUIREMENTS

		QUALITATIVE REQUIREMENTS
		Proficiency Code Key
	Scale	Definition: The individual
	Value	
	1	<b>IS EXTREMELY LIMITED</b> (Can do simple parts of the task. Needs to be told or shown how to do
		most of the task.)
Task	2	IS PARTIALLY PROFICIENT (Can do most parts of the task. Needs only help on hardest parts.)
Performance	3	IS COMPETENT (Can do all parts of the task. Needs only a spot check of completed work.)
Levels	4	IS HIGHLY PROFICIENT (Can do the complete task quickly and accurately. Can tell or show
		others how to do the task.)
	a	KNOWS NOMENCLATURE (Can name parts, tools, and simple facts about the task.)
*Task	b	<b>KNOWS PROCEDURES</b> (Can determine step by step procedures for doing the task.)
Knowledge	c	KNOWS OPERATING PRINCIPLES (Can identify why and when the task must be done and why
		each step is needed.)
Levels	d	KNOWS ADVANCED THEORY (Can predict, isolate, and resolve problems about the task.)
	A	KNOWS FACTS (Can identify basic facts and terms about the subject.)
**Subject	В	KNOWS PRINCIPLES (Can identify relationship of basic facts and state general principles about the
-		subject.)
Knowledge	С	KNOWS ANALYSIS (Can analyze facts and principles and draw conclusions about the subject.)
Levels	D	KNOWS EVALUATION (Can evaluate conditions and make proper decisions about the subject.)

#### Explanations

- \* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)
- \*\*A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.
- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.

/ This mark is used in course columns to show that training is required but not given/reduced due to limitations in resources. (3c/b, 2/b/b, 3c/-, etc.)

X This mark is used alone in course columns to show that training is required but not given due to limitations in resources.

NOTE: All tasks and knowledge items shown with a proficiency or knowledge code are trained during wartime.

Attachment 1

	jENE	KAI		IING REQU	JIREME	NTS	1					
	2. Core Tasks 3. Certification For OJT							4. Proficiency Codes Used To Indicate Training/ Information Provided (See Note)				
1. Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	SI	C 7 kill evel	
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC	
2 ATTACHMENT 2, GENERAL TRAINING REQUIREMENTS												
2.1 CAREER LADDER PROGRESSION												
2.1.1 Progression in career ladder								-	-	-	-	
2.1.2 Duties of AFSC								-	-	-	-	
2.2 SECURITY TR: DODR 5200-1; AFSSI												
2.2.1 Communications Security (COMSEC)												
2.2.1.1 Security violations prevention								Α	В	-	-	
2.2.1.2 Critical Information Listing								-	-	-	_	
2.2.1.3 Identify security								Α	В	_	_	
precautions								, ,				
2.2.2 Physical Security												
2.2.2.1 Classified equipment								Α	В	-	-	
2.2.2.2 Classified information								Α	В	-	-	
2.2.2.3 Command, Control,												
Communications, and Computer (C4) Systems Security								-	-	-	_	
2.2.2.4 Use system security classification guides Applicable weapons security guides								-	А	-	-	
2.2.2.5 Operational security (OPSEC) vulnerabilities of AFSC AFI 10-1101								А	-	-	-	
2.2.2.6 Destruction of Classified Information								-	Α	-	-	
2.3 SUPERVISION												
2.2.2.3.1 Perform Initial Evaluation 36-2108; AFI 36-2201V3								_	-	-	_	
2.2.2.3.2 Orient New Personnel AFMAN 36-2108; AFIs 36-2201, 36- 2103								-	-	-	-	
2.4 TRAINING												
2.4.1 Evaluate Personnel to Determine Need for Training AFI 36-2201V3								-	-	-	-	

	ENE	RAI	_ TRAIN	ING REQU	JIREME	NTS					
2. Core Tasks 3. Certification For OJT 4. Proficiency Codes Used To Indicate Training/ Information Provided (See Note)											
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	SI	C 7 cill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
2.4.2 Maintain Training Records AFI 36-2201V3								-	-	-	-
2.4.3 Utilize Automated Training Records								-	-	-	
2.5 AIR FORCE OCCUPATIONAL SAFETY AND HEALTH (AFOSH) PROGRAM											
2.5.1 Hazards and AFOSH STDS of AFSC 2A0X1P AFIND 17, AFIS 91- 301, 91-302, AFOSH STDs 48-8, 48- 9, 48-139, 91-46, 91-66, 91-68, 91- 501, 161-2, 161-17, 161-20, 161-21								А	В	-	-
2.5.2 Work Areas Cleanliness and Safety AFOSH STD 91-66								-	-	-	ı
2.5.3 Safety practices when working with or in the vicinity of											
2.5.3.1 Electrical power / High Voltage AFOSH STD 91-66; TOs 31- 1-141-1, 33-1-32; 00-25-232								А	В	-	-
2.5.3.2 Compressed Gases AFOSH STD 91-501; TOs 00- 25-234, 42B5-1-2, 42B7-3-1-1								-	-	-	-
2.5.3.3 Hand and Power Tools TOs 00-25-234, 32-1-101, 32-1-151, 32-1-2								А	В	-	-
2.5.3.4 Radioactive Materials AFOSH STD 48-9, TO 31-1-141-9								-	-	-	-
2.5.3.5 High Intensity Sound AFOSH STD 48-19								-	В	-	ı
2.5.3.6 RF Radiation								Α	В	-	-
2.5.3.7 Lifting Devices AFOSH STD 91-46								Α	В	-	-
2.5.3.8 Lasers Safety AFOSH STD 48-139; ANSI Z136.1-XXXX, TOs 31-1-141-1, 31-1-141-3								-	-	-	-
2.5.3.9 Report RF Overexposure								-	А	-	-

	GENE	ERAI		ING REQU	JIREME	NTS	1				
	2. Core	Tasks	<ol><li>Certifica</li></ol>	tion For OJT				Proficiency Codes Used To Indicate raining/ Information Provided (See Note)			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	SI	C 7 cill evel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
2.6 HAZARDOUS MATERIALS &											
WASTE											
2.6.1 Review MSDS								Α	-	-	-
2.6.2 Identification								Α	-	-	-
2.6.3 Handling								Α	-	-	-
2.6.4 Storage and Labeling								Α	-	-	-
2.6.5 Disposal								Α	-	-	-
2.6.6 Waste Minimization								Α	-	-	-
2.7 TECHNICAL PUBLICATIONS											
2.7.1 Standard Publications								-	Α	-	-
2.7.2 USAF TO System											
Management								_	-	-	-
2.7.3 USAF TO System Function								Α	Α	_	
and Application								A	A	_	_
2.7.4 Computer Program											
Identification Number (CPIN)											
System/Automated Computer Identification Number (ACPIN)								_	_		
System TOs 00-5-1, 00-5-16, 00-5-								Α	Α	-	-
17, 00-5-18, AFI-10-703 and											
applicable data											
2.7.5 Time Compliance TO								-	Α	-	-
2.7.6 TO Deficiency Reporting											
Procedures TO 00-5-1								_	Α	ı	-
2.7.7 Use TOs to Perform											
2.7.7.1 Maintenance	*							2b	В	-	-
2.7.7.2 Part Number Research	*							2b	-	-	=
2.7.8 Schematics and Wiring/Block											
Diagrams											
2.7.8.1 Use Schematics											
Wiring/Block Diagrams and Logic	*							2b	-	-	-
trees											
2.8 AIR FORCE SUPPLY DISCIPLINE											
2.8.1 Supply Discipline AFMAN 23-110, Vol 2, Pt 13								Α	В	-	-
2.8.2 Use Supply Cross References											
USAF S-2A-1, Use Federal Logistics								2b	-	-	-
Data (FEDLOG), D043											

	3ENE	ERAI	_ TRAIN	ING REQU	JIREME	NTS					
	2. Core Tasks 3. Certification For OJT						<ol> <li>Proficiency Codes Used To Indicate Training/ Information Provided (See Note)</li> </ol>				
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	Sk	C 7 till vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
2.9 SUPPLY PROCEDURES											
2.9.1 Asset Requisition/Turn-In											
AFMAN 23-110, Vol 2, Pt 13, Chapt-								-	В	-	-
3, Attach -3A-3											
2.9.2 AF Form 2005								2b	-	-	-
2.9.3 Complete Condition Tags	*							2b		-	
2.9.4 Product Improvement											
2.9.4.1 Deficiency Reports TO 00-									_		
35D-54, AFSCM 21-578, Vol 2								-	В	-	-
2.1 MAINTENANCE MANAGEMENT											
AND INSPECTION											
2.10.1 Duties and Responsibilities										-	
of Shop Personnel								_	-	_	_
2.10.2 Levels of Maintenance AFI								Α	В	_	_
21-101									, o		
2.10.3 Basic Functions and											
responsibilities within the											
Maintenance Organization AFIs 21-								Α	Α	-	-
101, 38-101											
2.10.4 Logistics and Resource											
Management											
2.10.4.1 Introduction to											
Maintenance Resource								Α	_	_	_
Management											
2.10.4.2 Logistics Management											
AFIs 21-101								=	-	-	-
2.10.4.3 Resource Management											
AFI 65-601, Vol 1								-	_		_
2.10.5 Status Reports AFI 21-103								-	-	-	-
2.10.6 Maintenance Incident											
Investigation and Prevention AFIs								-	-	-	-
91-202, 91-204, 91 -206											
2.10.7 Mobility AFH 10-416; AFIs								_	_	_	_
10-215, 10-403; AFMAN 10-100											
2.10.8 Maintenance, Inspection											
Systems and Forms											

	ENE	RAI	_ TRAIN	ING REQU	JIREME	NTS					
	2. Core	Γasks	<ol><li>Certifica</li></ol>	tion For OJT				oficiency Coo ng/ Informat			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	SI	C 7 kill evel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
2.10.8.1 Inspections systems								А	А	-	-
2.10.8.2 Use maintenance forms											
2.10.8.2.1 AFTO Form 350	*							2b	-	-	-
2.10.8.2.2 AFTO Form 349								-	-	-	-
2.10.8.2.3 AFTO Form 244	*							2b	Α	-	-
2.10.8.2.4 AFTO Form 95								=	-	-	-
2.10.8.3 Calibration Forms								1a	Α	-	-
2.10.8.4 Document Automated Forms								-	-	-	-
2.11 JOB DATA DOCUMENTATION (JDD) (IMDS)											
2.11.1 Historical Records								=,	-	-	-
2.11.2 Status Reports								-	-	-	-
2.11.3 Configuration Management AFI 21-101								-	-	-	-
2.12 MAINTENANCE DATA DOCUMENTATION (MDD)											
2.12.1 Fundamentals and Application of MDD								Α	В	-	-
2.12.2 Reliability, Availability, Maintainability, for Pods, (RAMPOD)											
2.12.2.1 Maintenance Transactions	*							Α	-	-	-
2.12.2.2 Maintenance Inquiries	*							Α	-	-	-
2.13 Integrated Maintenance Data System (IMDS)											
2.13.1 IMDS Principles								Α	В	-	-
2.13.2 Maintenance Transactions	*							2b	В	-	-
2.13.3 Maintenance Inquiries	*							2b	-	-	-
2.13.4 Supply Transactions								2b	В	-	-
2.13.5 Management/ Supervision/Training Transactions								-	-	-	-
2.13.6 Complete Integrated MX Data Systems (IMDS) CBT								-	-	-	-
2.14 METROLOGY PRINCIPLES											
2.14.1 Use Calibration Correction Charts								-	-	-	-

	GENERAL TRAINING REQUIREMENTS  2. Core Tasks 3. Certification For OJT 4. Proficiency Codes Used To IndiTraining/ Information Provided (Se											
	Core	Lasks				1	Traini	ng/ Informati A	on Provid		Note)	
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	3 Skill Level	5 Skill Level	SI	7 Kill vel	
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC	
2.15 GENERAL MAINTENANCE												
PRACTICES												
2.15.1 Corrosion Control TOs 1-1-								Α	_	_	_	
689,1-1-691, 00-20-1, 00-25-234								, ,				
2.15.2 Clean Equipment								-	-	-	-	
2.15.3 Lubricate Equipment								-	ı	-	-	
2.15.4 Inspect Equipment								-	-	-	-	
2.15.5 Pack/Unpack LRUs								-	-	-	-	
2.15.6 Perform Safety Wiring TO								26				
00-25-234								2b	ı	=	-	
2.15.7 Clean Optical Surfaces IAW										_	_	
System Level TO								_	_	_	_	
2.15.8 Cable Repair												
2.15.8.1 Perform Cable Lacing								2b	-	-	-	
2.15.8.2 Perform Cable Splicing								-	-	-		
2.15.8.3 Perform Video Splicing								-	-	-	-	
2.15.8.4 Perform Connector												
Potting								_	-	-	-	
2.15.8.5 Coaxial cable												
2.15.8.5.1 Repair								-	-	-	-	
2.15.8.5.2 Fabricate								-	-	-	-	
2.15.8.6 Multipin												
connectors/cables												
2.15.8.6.1 Repair								-	-	-	-	
2.15.8.6.2 Fabricate								-	-	-	-	
2.15.9 TOOLS												
2.15.9.1 Inventory and Inspect												
Composite Tool Kits (CTKs) AFI 21-	*							2b	-	-	-	
101												
2.15.9.2 Tool Accountability AFI									Λ	_	_	
21-101								_	Α		_	
2.15.9.3 Use Common Hand Tools	*							2b	1	_	_	
AFOSHSTD 91-501, TO 32-1-101								20	=		_	
2.15.9.4 Use Torque wrenches												
TO32B14-3-1-101, Applicable	*							2b	В	-	-	
Systems TOs												

	2. Core			IING REQU	JIKEME	NIS		oficiency Coo			
Tasks, Knowledge And Technical References	A	В	A	В	C	D	E	A 3 Skill Level	B 5 Skill Level	SI	C 7 kill
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
2.15.10 Electrostatic Sensitive Device (ESD)											
2.15.10.1 Electrostatic Sensitive Device (ESD) Principles								-	В	_	-
2.15.10.2 Perform Electrostatic Sensitive Device (ESD) Procedures								2b	-	-	-
2.15.11 General Pod Support Equipment											
2.15.11.1 Perform Pod Cradle prior to use / 180-day inspection 35D-1-301	*							-	-	-	-
2.15.11.2 Perform Pod Dolly prior to use / 90-day inspection 35D-1-301	*							-	-	-	-
2.15.11.3 Perform Pod Shipping Container prior to use / 360-day inspection 35E20-4-26-1								-	-	-	-
2.15.12 C-9492B CONTROL INDICATOR											
2.15.12.1 Perform bench check of C-9492B Control Indicator 12P3-2ALQ-122								-	-	-	-
2.15.12.2 Perform placard set- up/changes for AN/ALQ-131, AN/ALQ-184 and AN/ALQ-188A pods 12P3-2ALQ-122, 12P3- 2ALQ188-12, and AN/ALQ-188A(V)								-	-	-	-
CMS User s Guide 2.16 DIRECT SUPPORT EQUIPMENT											
2.16.1 Test Equipment Care and Handling											
2.16.1.1 Prepare for Shipment								-	-	-	-
2.16.1.2 Prepare for Storage								-	-	-	-
2.16.1.3 Prepare for Climate Conditions								-	-	-	-
2.17 DATA TRANSFER EQUIPMENT											
2.17.1 Data transfer principles								A	В	-	-
2.17.2 Operate data transfer								2b	-	-	-

	GENE	RAI	TRAIN	IING REQU	UIREME	NTS					
	2. Core	Γasks	<ol><li>Certifica</li></ol>	tion For OJT				oficiency Coding/ Informat			
1. Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	1	C 7 till vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
equipment											
2.18 ELECTRONIC WARFARE COMBAT FUNDAMENTALS											
2.18.1 Electronic combat								Α	В	-	_
2.18.2 Directed Radio Frequency (RF) radiation								В	В	-	-
2.18.3 Electronic Warfare categories								В	В	-	-
2.18.4 Integrated Air defense systems								А	В	-	-
2.18.5 Component types								-	-	-	_
2.19 RF FUNDAMENTALS											
2.19.1 Principles								Α	В	-	-
2.19.2 Component Types								Α	В	-	-
2.19.3 Isolate/Identify RF Malfunctions								А	В	-	-
2.20 USE TEST EQUIPMENT											
2.20.1 Universal counter								-	Α	-	-
2.20.2 Power meter								2b	Α	-	-
2.20.3 Frequency counter								2b	Α	-	-
2.20.4 Scalar network analyzer								2b	Α	-	-
2.20.5 Pulse generator								2b	Α	-	-
2.20.6 Sweep oscillator								2b	Α	-	-
2.20.7 Radio Frequency radiation monitor								2b	-	-	-
2.20.8 Oscilloscope								2b	Α	-	-
2.20.9 Spectrum analyzer								2b	Α	-	-
2.21 GROUND HANDLING											
2.21.1 Pods								Α	Α	-	-
2.21.2 Test Equipment								Α	-	-	-
2.21.3 Lifting Devices								Α	В	-	-
2.21.4 Inspect								Α	-	-	-
2.21.5 Operate								Α	-	-	-

#### SENSOR SYSTEM MAINTENANCE TRAINING REQUIREMENTS

SENSOR SYSTEM MAINTENANCE TRAINING REQUIREMENTS  2 3. Certification For OJT 4. Proficiency Codes Used To Indicate											
	2. Core	Γasks	<ol><li>Certificat</li></ol>	ion For OJT				oficiency Coo ng/ Informat			
Tasks, Knowledge And Technical References	A 5	B 7	A	B	C Trainee	D Trainer	E Certifier	A 3 Skill Level	B 5 Skill Level	Sk	cill vel
	-	Level	Start	Complete	Initials	Initials	Initials	Course	CDC	Course	CDC
3 ATTACHMENT 3, SENSOR											
SYSTEMS MAINTENANCE TRAINING											
REQUIREMENTS											
3.1 SENSOR SYSTEMS MAINTENANCE PRINCIPLES											
3.1.1 Infrared (IR) Systems TO											
System TOs								-	-	-	-
3.1.2 Laser Systems System TOs								-	-	-	-
3.1.3 Radar / Terrain Following								_	_	_	_
Systems TO System TOs								_		_	
3.1.4 Environmental Control								-	-	-	-
Systems (ECS)  3.1.5 Servo Systems System TOs											
3.1.6 Optics System TOs								-	-	-	-
3.1.7 RF Components								-	-	-	-
3.1.7.1 Principles											
3.1.7.2 Isolate/Identify RF								=	=	-	-
Malfunctions								-	-	-	-
3.1.8 Data Bus Communication											
3.1.8.1 IEEE Bus Communication											
Standard IEEE-488								ı	-	-	-
3.1.8.2 488/1553 Data Bus Theory								ı	-	-	-
3.2 DIGITAL TECHNIQUES											
3.2.1 Applications/Calculations								=	-	-	-
3.2.2 Components								-	-	-	-
3.2.3 RAMPOD Familiarization AFI								_		_	
21-103	1										
3.2.4 VXI Theory								-	-	-	-

1. Tasks, Knowledge And Technical References  A B A B C D E Skill Skill Level   Skill Level   Skill Level   Skill Level   Leve
4 ATTACHMENT 4, LANTIRN TRAINING REQUIREMENTS 4.1 LOW ALTITUDE NAVIGATION AND TARGETING INFRARED FOR NIGHT (LANTIRN) SYSTEM 4.1.1.1 Description 4.1.1.2 Theory of Operation 4.1.1.2.1 IR Subsystem 4.1.1.2.3 Environmental Control Subsystem 4.1.1.4 Remove and Install 4.1.1.4 Radar Interface Unit (RIU) 4.1.1.4.1 Radar Interface Unit (RIU) 4.1.1.4.2 Antenna Gimbal (A/G)
TRAINING REQUIREMENTS  4.1 LOW ALTITUDE NAVIGATION AND TARGETING INFRARED FOR NIGHT (LANTIRN) SYSTEM  4.1.1 Navigation Set, AAQ-13  4.1.1.1 Description  4.1.1.2 Theory of Operation  4.1.1.2.1 IR Subsystem  4.1.1.2.2 TFR Subsystem  4.1.1.2.3 Environmental Control Subsystem  4.1.1.4 Remove and Install  4.1.1.4 Radar Interface Unit (RIU)  4.1.1.4.2 Antenna Gimbal (A/G)
4.1 LOW ALTITUDE NAVIGATION AND TARGETING INFRARED FOR NIGHT (LANTIRN) SYSTEM 4.1.1 Navigation Set, AAQ-13 4.1.1.1 Description 4.1.1.2 Theory of Operation 4.1.1.2.1 IR Subsystem 4.1.1.2.2 TFR Subsystem 4.1.1.2.3 Environmental Control Subsystem 4.1.1.3 Run Functional Test 4.1.1.4 Remove and Install 4.1.1.4.1 Radar Interface Unit (RIU) 4.1.1.4.2 Antenna Gimbal (A/G)
AND TARGETING INFRARED FOR NIGHT (LANTIRN) SYSTEM  4.1.1 Navigation Set, AAQ-13  4.1.1.1 Description
NIGHT (LANTIRN) SYSTEM       4.1.1 Navigation Set, AAQ-13         4.1.1.1 Description          4.1.1.2 Theory of Operation          4.1.1.2.1 IR Subsystem          4.1.1.2.2 TFR Subsystem          4.1.1.2.3 Environmental Control Subsystem          4.1.1.3 Run Functional Test          4.1.1.4 Remove and Install          4.1.1.4.1 Radar Interface Unit (RIU)          4.1.1.4.2 Antenna Gimbal (A/G)
4.1.1 Navigation Set, AAQ-13          4.1.1.1 Description          4.1.1.2 Theory of Operation          4.1.1.2.1 IR Subsystem          4.1.1.2.2 TFR Subsystem          4.1.1.2.3 Environmental Control Subsystem          4.1.1.3 Run Functional Test          4.1.1.4 Remove and Install          4.1.1.4.1 Radar Interface Unit (RIU)          4.1.1.4.2 Antenna Gimbal (A/G)
4.1.1.1 Description          4.1.1.2 Theory of Operation          4.1.1.2.1 IR Subsystem          4.1.1.2.2 TFR Subsystem          4.1.1.2.3 Environmental Control Subsystem          4.1.1.3 Run Functional Test          4.1.1.4 Remove and Install          4.1.1.4.1 Radar Interface Unit (RIU)          4.1.1.4.2 Antenna Gimbal (A/G)
4.1.1.2 Theory of Operation       4.1.1.2.1 IR Subsystem          4.1.1.2.2 TFR Subsystem          4.1.1.2.3 Environmental Control Subsystem          4.1.1.3 Run Functional Test          4.1.1.4 Remove and Install          4.1.1.4.1 Radar Interface Unit (RIU)          4.1.1.4.2 Antenna Gimbal (A/G)
4.1.1.2.1 IR Subsystem       -
4.1.1.2.2 TFR Subsystem       -
4.1.1.2.3 Environmental Control
Subsystem          4.1.1.3 Run Functional Test          4.1.1.4 Remove and Install          4.1.1.4.1 Radar Interface Unit (RIU)          4.1.1.4.2 Antenna Gimbal (A/G)
4.1.1.3 Run Functional Test       -
4.1.1.4.1 Radar Interface Unit (RIU)       -       -       -         4.1.1.4.2 Antenna Gimbal (A/G)       -       -       -
4.1.1.4.2 Antenna Gimbal (A/G)
4.1.1.4.3 Transmitter (XMTR)
4.1.1.4.4 Receiver/Exciter (R/E)
4.1.1.4.5 Radar Power Supply (RPS)
4.1.1.4.6 Radar Pressurizing Unit
(RPU)
4.1.1.4.7 Navigation Set Computer
(NSC)
4.1.1.4.8 Infrared Receiver (IR)
4.1.1.4.9 Navigation Set Power Supply (NSPS)
4.1.1.4.10 Environmental Control
Unit (ECU)
4.1.1.4.11 Electro-Magnetic
Interference (EMI) Filter
4.1.1.5 Service
4.1.1.5.1 Coolant Loop
4.1.1.5.2 Radar Pressurization Unit (RPU)
4.1.1.5.3 Infrared Receiver (IR)
4.1.1.6 Radar Interface Unit (RIU)
4.1.1.6.1 Remove and Install SRUs

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	Core	Γasks	<ol> <li>Certifica</li> </ol>	tion For OJT				oficiency Coo ng/ Informat			
1. Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3	B 5		C 7
								Skill Level	Skill Level	1	till
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
4.1.1.7 Antenna Gimbal (A/G)											
4.1.1.7.1 Remove and Install SRUs								-	-	-	-
4.1.1.8 Transmitter (XMTR)											
4.1.1.8.1 Remove and Install SRUs								-	-	-	-
4.1.1.9 Receiver/Exciter (R/E)											
4.1.1.9.1 Remove and Install SRUs								-	-	-	-
4.1.1.10 Radar Power Supply (RPS)											
4.1.1.10.1 Remove and Install SRUs								-	-	-	-
4.1.1.11 Radar Pressurization Unit (RPU)											
4.1.1.11.1 Remove and Install											
Gauge								-	-	=	-
4.1.1.12 Navigation Set Computer (NSC)											
4.1.1.12.1 Remove and Install SRUs								-	-	-	-
4.1.1.12.2 Load Operational Flight								_	_	_	_
Program (OFP)								_	_	_	
4.1.1.13 Infrared Receiver (IR)											
4.1.1.13.1 Remove and Install SRUs								-	-	-	-
4.1.1.14 Navigation Set Power											
Supply											
4.1.1.14.1 Remove and Install SRUs								-	-	-	-
4.1.1.15 Environmental Control Unit (ECU)											
4.1.1.15.1 Remove and Install SRUs								_	_	_	_
4.1.1.15.2 Repair								_	_	_	
4.1.1.15.3 Service coolant								_	_	_	_
4.1.2 Targeting Set, AAQ-14											
4.1.2.1 Description								_	_	_	_
4.1.2.2 Theory of Operation											
4.1.2.2.1 Servo Subsystem								_	_	_	_
4.1.2.2.2 Environmental Control											
Subsystem								-	-	-	-
4.1.2.2.3 Laser Subsystem								-	-	-	-
4.1.2.2.4 FLIR Subsystem								-	-	-	-
4.1.2.3 Run Functional Test								-	_	-	_
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	Core	Γasks	3. Certifica	tion For OJT				oficiency Coo ng/ Informati			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	Sk	C 7 cill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
4.1.2.4 Remove and Install											
4.1.2.4.1 Nose Equipment Support											
Assembly (NESA)								-	_	_	_
4.1.2.4.2 Roll Section Assembly								-	-	-	-
4.1.2.4.3 Targeting Set Computer (TSC)								-	-	-	-
4.1.2.4.4 Central Electronics Unit (CEU)								-	-	-	-
4.1.2.4.5 Power Supply (TSPS)								-	-	-	-
4.1.2.4.6 Environmental Control Unit (ECU)								-	-	-	-
4.1.2.5 Perform Alignments											
4.1.2.5.1 Function of Alignments								-	-	-	-
4.1.2.5.2 Drift Bias Adjustment								_	_	_	_
(AL1)								_	_	_	_
4.1.2.5.3 Focus Adjustment (AL2)								-	-	-	-
4.1.2.5.4 Deroll Symbology Bias (AL3)								-	-	-	-
4.1.2.5.5 Pitch/Yaw-to-Roll Resolver Bias (AL4)								-	-	-	-
4.1.2.5.6 Roll/Deroll-to-Mount Bias (AL5)								-	-	-	-
4.1.2.5.7 AZ/EL-to-Mount PT System Bias (AL6)								-	-	-	-
4.1.2.5.8 Gain Balance Adjustment (AL7)								-	=	-	-
4.1.2.5.9 Dead Channel Strap (AL9)								-	-	-	-
4.1.2.5.10 FLIR LOS-to-Pitch Axis (AL10)								-	-	-	-
4.1.2.5.11 Detector Temperature Adjust (AL11)								-	-	-	-
4.1.2.5.12 Detector Position Adjust (AL12)								-	-	-	-
4.1.2.5.13 TAF to Deroll (AL13)								-	-	-	_
4.1.2.5.14 Shroud Actuator Adjustment (AL14)								-	-	-	-
4.1.2.5.15 Laser to FLIR (AL15)											
4.1.2.5.15.1 First Fold Prism Adjust								-	-	-	-
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	2.	,		NG REQUI	KEMEN	15	4. Pro	oficiency Coo	les Used '	To Indicat	e
	Core	Tasks		T	T	1		ng/ Informat	ion Provi	ded (See N	Note)
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill	B 5 Skill	1	C 7 cill
		-	<b></b>	T.	m :	m :	G de	Level	Level	Le	vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
4.1.2.5.15.2 Four Times Expander								_	_	_	_
Adjust								_	_		_
4.1.2.5.16 Stow Servos (AL16)								-	-	-	-
4.1.2.5.17 Roll Brake Release								-	-	_	-
(AL17)											
4.1.2.5.18 Nose Processor Bias								-	-	_	_
Transfer (AL18) 4.1.2.5.19 Fetch Pod Bias Data											
(AL19)								-	-	-	-
4.1.2.5.20 TAF FLIR Test (AL20)								_	_	_	_
4.1.2.5.21 Pod Mode Control											
(AL21)								-	-	-	-
4.1.2.5.22 TAF Centration								-	_	_	_
4.1.2.5.23 Horizontal Slider											
Adjustment								-	-	-	-
4.1.2.5.24 Vertical Slider											
Adjustment								_	_		_
4.1.2.6 Service											
4.1.2.6.1 Coolant Loop								-	-	-	-
4.1.2.6.2 Desiccant (NESA)								-	-	-	-
4.1.2.7 Nose Equipment Support Assembly (NESA)											
4.1.2.7.1 Remove and Install SRUs											
4.1.2.7.1.1 Laser Transmitter											
Receiver								-	-	-	-
4.1.2.7.1.2 Laser Transmitter											
Controller								=	=	=	=
4.1.2.7.1.3 Coolant Loop								-	-	-	-
4.1.2.7.1.4 Optical Relay Assembly								-	-	-	-
4.1.2.7.1.5 CCAs/ECAs								-	_	-	_
4.1.2.7.1.6 Repair								-	-	-	-
4.1.2.8 Roll Section Assembly											
4.1.2.8.1 Remove and Install SRUs											
4.1.2.8.1.1 Target Acquisition FLIR											
(TAF)									_		_
4.1.2.8.1.2 Cooler/Detector								-	-	_	-
4.1.2.8.1.3 CCAs								-	-	_	-

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	Core	Tasks	<ol><li>Certifica</li></ol>	tion For OJT				oficiency Coo ing/ Informat		To Indicate ded (See Note)		
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	Sk	C 7 cill vel	
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC	
4.1.2.8.1.4 Matched Scanner Set								_	_	_	-	
4.1.2.8.1.5 Slip Ring Assembly								=	=	=	-	
4.1.2.9 Targeting Set Computer (TSC)												
4.1.2.9.1 Load Operational Flight Program (OFP)								-	-	-	-	
4.1.2.9.2 Remove and Install SRUs								-	_		-	
4.1.2.10 Central Electronics Unit (CEU)												
4.1.2.10.1 Remove and Install SRUs	5							-	-	-	-	
4.1.2.11 Power Supply (TSPS)												
4.1.2.11.1 High Voltage Power Supply Functional Test								-	-	-	-	
4.1.2.11.2 Remove and Install SRUs	5							=	=	-	-	
4.1.2.11.3 Repair								-	-	-	-	
4.1.2.12 Environmental Control Unit (ECU												
4.1.2.12.1 Remove and Install SRUs	5							=	=	-	-	
4.1.2.12.2 Repair								-	-	-	-	
4.1.2.12.3 Service Coolant								-	-	-	-	
4.1.3 Use, Maintain, Test, Inspect and Service LANTIRN Equipment												
4.1.3.1 LANTIRN Mobility Shelter Set (LMSS)												
4.1.3.1.1 Description								=-	-	-	-	
4.1.3.1.2 Prepare for Shipment (Decomplex)												
4.1.3.1.2.1 Electro-Optical Test Set (EOTS)								-	-	-	-	
4.1.3.1.2.2 Hoist/Monorail								_		-	_	
4.1.3.1.2.3 Peripheral Equipment												
4.1.3.1.2.3.1 Cooling and Servicing Unit (CSU) NESLAR								-	-	-	-	
4.1.3.1.2.3.2 Cooling and Servicing Unit (CSU) Ellis and WATTS								-	-	-	-	
4.1.3.1.2.3.3 400-Hz Converter								-	_	-	-	
4.1.3.1.2.3.4 LANTIRN AEF Tester (LAT/EOTS)								-	-	-	-	
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	Core	Tasks	3. Certifica	tion For OJT				oficiency Coo ng/ Informat			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	Sk	C 7 xill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
4.1.3.1.2.3.5 Air Conditioner								-	-	_	_
4.1.3.1.2.3.6 Caster Jacks								-	-	-	-
4.1.3.1.2.3.7 Shelter A and B								-	-	-	-
4.1.3.1.2.3.8 A-Frame Gantry								-	-	-	-
4.1.3.1.3 Prepare for Use (Complex)											
4.1.3.1.3.1 Electro-Optical Test Set (EOTS)								-	-	-	-
4.1.3.1.3.2 Hoist/Monorail											
Operation								-	-	_	-
4.1.3.1.3.3 Peripheral Equipment											
4.1.3.1.3.3.1 Cooling and Servicing Unit (CSU) NESLAB								-	-	-	-
4.1.3.1.3.3.2 Cooling and Servicing Unit (CSU) Ellis and Watts								-	-	-	-
4.1.3.1.3.3.3 LANTIRN AEF Tester (LAT/EOTS)								-	-	-	-
4.1.3.1.3.3.4 400-Hz Converter								-	-	-	-
4.1.3.1.3.3.5 Air Conditioner								-	-	-	-
4.1.3.1.3.3.6 Caster Jacks								-	-	-	-
4.1.3.1.3.3.7 Shelter A and B								-	-	-	-
4.1.3.1.3.3.8 A-Frame Gantry								-	-	-	-
4.1.3.2 LANTIRN AEF Tester (LAT)											
4.1.3.2.1 Description								-	-	-	-
4.1.3.2.2 Theory of Operation								-	-	-	-
4.1.3.2.3 LAT Startup								-	-	-	-
4.1.3.2.4 LAT Shutdown								-	-	-	-
4.1.3.2.5 Operational Checkout											
4.1.3.2.5.1 Perform Instrument Self Tests (IST)								-	-	-	-
4.1.3.2.5.2 Perform Station Self								-	-	-	-
4.1.3.2.5.3 Load Station Software								_	_	_	_
4.1.3.2.5.4 Perform LAT								_	_	_	_
Verification Using PATEC								_	_		_
4.1.3.2.6 Perform Periodic Inspection								-	-	-	-
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LANTIRN TRAINING REQUIREMENTS

1	LANT			NG REQUI	REMEN	IS	ı				
	Core	Tasks	<ol><li>Certifica</li></ol>	tion For OJT				oficiency Coo ing/ Informat			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill	B 5 Skill	SI	C 7 kill
	5	7	Tng	Tng	Trainee	Trainer	Certifier	Level (1)	Level (1)	(1)	(1)
4122 Flooting Onting! Took Store!	Level	Level	Start	Complete	Initials	Initials	Initials	Course	CDC	Course	CDC
4.1.3.3 Electro-Optical Test Stand (EOTS											
4.1.3.3.1 Description								-	-	-	-
4.1.3.3.2 Theory of Operation								-	-	-	-
4.1.3.3.3 Perform EOTS Self Test								-	-	-	-
4.1.3.3.4 Calibrate Blackbody								_	_	_	_
Source TO 33D7-45-90-8-11								_			
4.1.3.3.5 Perform 180-Day								-	_	_	_
Inspection											
4.1.3.4 Cooling and Servicing Unit (CSU); Ellis and Watts and/or											
NESLAB											
4.1.3.4.1 Description								-	-	-	-
4.1.3.4.2 Theory of Operation								-	-	-	-
4.1.3.4.3 Operate								-	-	-	-
4.1.3.4.4 Perform Periodic											
Inspections											
4.1.3.4.4.1 60 Day								-	-	-	-
4.1.3.4.4.2 180 Day								-	-	-	-
4.1.3.4.5 Repair								-	-	-	-
4.1.3.5 Diesel Generator											
4.1.3.5.1 Description								-	-	-	-
4.1.3.5.2 Theory of Operation								-	-	-	-
4.1.3.5.3 Operate								-	-	-	-
4.1.3.6 400-Hz Converter											
4.1.3.6.1 Description								-	-	-	-
4.1.3.6.2 Theory of Operation								-	-	-	-
4.1.3.6.3 Test and Inspect								-	-	-	-
4.1.3.7 Air Conditioners											
4.1.3.7.1 Description								-	-	-	-
4.1.3.7.2 Theory of Operation								-	-	-	-
4.1.3.7.3 Operate								-	-	-	-
4.1.3.7.4 Perform Periodic										_	_
Inspection								_			
4.1.3.8 Portable Reprogramming											
Station											

#### LANTIRN TRAINING REQUIREMENTS

	2. Core			tion For OJT				oficiency Coo			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	SI	C 7 kill evel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
4.1.3.8.1 Description								-	-	-	-
4.1.3.8.2 Theory of Operation								-	-	-	-
4.1.3.8.3 Operate								-	-	-	-
4.1.3.8.4 Program APCCs								-	-	-	-
4.1.3.9 Download and Analyze											
Data Logging Module (DLM) TO 11F1-AAQ13								-	-	-	-
4.1.3.10 Transfer Pods/Systems to/from Storage/Holding Fixture											
4.1.3.10.1 Shipping Container								-	-	-	-
4.1.3.10.2 Maintenance Fixture, Portable or Fixed								-	-	-	-
4.1.3.10.3 Transport Trailer								-	-	_	_

AN/A	LQ 1 2. Core '			AINING RE	QUIREM	IEN15		oficiency Cod			
Tasks, Knowledge And Technical References							I'raini	ng/ Informati A	on Provid B		Note)
1. Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	3 Skill	5 Skill	1	7 xill
	5	7	Tng	Tng	Trainee	Trainer	Certifier	Level (1)	Level (1)		vel (1)
		Level	Start	Complete	Initials	Initials	Initials	Course	CDC	Course	CDC
5 ATTACHMENT 5, ALQ131 POD											
TRAINING REQUIREMENTS (Units											
that have multiple pods will only											
upgrade on one pod/station to 5 or											
7 level as determined by workcenter											
supervisor) 5.1 I-LEVEL MAINTENANCE TR:											
12P3-2ALQ131-22-3, ILSE software											
and CAPRE software											
5.1.1 AN/ALQ-131 ECM POD											
5.1.1.1 Operational Concept								В	В	-	-
5.1.1.2 Description								В	В	-	-
5.1.1.3 Theory of Operation								В	В	-	-
5.1.1.4 Connect AN/ALQ-131 Block											
II Pod to maintenance bench,								2b	_	_	_
support equipment, and cooling								25			
hoses											
5.1.1.5 Perform	*							21			
removal/installation of panels and	^							2b	-	-	-
gondola 5.1.1.6 Retrieve and view AN/ALQ-											
131 Block II Pod CITS history using								2 h			
ILSE and CAPRE								2b	_	_	-
5.1.1.7 Perform ICITS	*							2b	_	_	_
5.1.1.8 Perform SCITS	*							2b	_	_	_
5.1.1.9 Load Operational Flight											
Program (OFP) and Mission Data	*							_	-	-	-
using ILSE											
5.1.1.10 Perform AN/ALQ-131	*										
Block II Pod Total test								_	_		_
5.1.1.11 Perform Band 4 Minimum								2b	-	_	-
Performance Test	<u> </u>									-	
5.1.1.12 Perform JAM display	*	<u> </u>						2b	-	-	-
5.1.1.13 Access Generic Gains		*						-	-	-	-
5.1.1.14 Access Test Director		*						2b	-	-	-
5.1.1.15 Perform CIPICO (manual								-	-	-	-
and automatic) 5.1.1.16 Remove and install	*							<b>2</b> h			
3.1.1.10 Neillove alla Ilistali					]			2b	_	-	-

AIV	2. Core			AINING RE	QUIKEN	IENIS		oficiency Coo			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	Sk	C 7 kill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
Transmit Control Assembly (TCA)											
5.1.1.17 Remove and install High											
Voltage Power Supply (HVPS)	*							2b	-	-	-
5.1.1.18 Remove and install Radio Frequency Deck	*							2b	-	-	-
5.1.1.19 Remove and install											
Interface Control 12P3-2ALQ131- 22-3	*							2b	-	-	-
5.1.1.20 Remove and install lugs 12P3-2AP3-2ALQ131-22-3, 1-1A-8	*							2b	-	-	-
5.1.1.21 Remove and install											
Receiver Processor Module (RP)	*							-	-	-	-
12P3-2ALQ131-22-3											
5.1.1.22 Remove and install RP	*							_	_	_	_
Tray 1 and Tray 2											
5.1.1.23 Perform ABLVPA	*							_	_	_	_
alignment ILSE software											
5.1.1.24 Perform ABHVLD	*							_	_	_	_
alignment ILSE software											
5.1.1.25 Perform ABINLN	*							-	-	_	_
alignment ILSE software											
5.1.1.26 Perform ABTWTA	*							-	-	-	-
alignment ILSE software											
5.1.1.27 Perform 040TPA alignment ILSE software	*							_	-	-	-
5.1.1.28 Perform ABOTGA											
alignment ILSE software	*							2b	-	-	-
5.1.1.29 Perform ABINGA											
alignment ILSE software	*							2b	-	-	-
5.1.1.30 Perform ABGOAA	<u> </u>										
alignment ILSE software	*							2b	_	-	-
5.1.1.31 Perform ABHLDA	*										
alignment ILSE software	*							-	-	-	-
5.1.1.32 Perform 45LLDA	*										
alignment ILSE software	7							_	_	-	_
5.1.1.33 Perform ABNLDA	*										
alignment ILSE software						<u> </u>		_		-	=
5.1.1.34 Perform ABNPWA	*							2b	_		-

AN/A	2. Core			INING RE	QUIREN	IEN15		oficiency Coo			
Tasks, Knowledge And Technical References	A	В	A	В	C	D	Е	A 3 Skill Level	B 5 Skill Level	Sk	C 7 cill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
alignment ILSE software											
5.1.1.35 Perform ABANTA	*										
alignment ILSE software								_	_		_
5.1.1.36 Perform 5ILPRA alignment	*							_	_	_	_
ILSE software											
5.1.1.37 Perform ICLVPS alignment ILSE software	*							_	-	-	-
5.1.1.38 Perform RF leak check											
12P3-2ALQ131-22-3	*							-	-	-	-
5.1.1.39 Perform HYPOT alignment											
ILSE software	*							_	-	-	-
5.1.1.40 Perform Advanced		*									
Troubleshooting		·						-	-	_	-
5.1.1.41 Troubleshooting Band 3											
12P3-2ALQ131-22-6, 12P3-	*							-	-	-	-
2ALQ131-22-1, 12P3-2ALQ131-22-3											
5.1.1.42 Troubleshooting Band 4 12P3-2ALQ131-22-4, 12P3-	*										
2ALQ131-22-1, 12P3-2ALQ131-22-3								-	_	_	-
5.1.1.43 Troubleshooting Band 5											
12P3-2ALQ131-22-5, 12P3-	*							_	_	_	_
2ALQ131-22-1, 12P3-2ALQ131-22-3											
5.1.1.44 Troubleshooting Interface											
Control (I/C) 12P3-2ALQ131-22-2,	*							_	_	_	_
12P3-2ALQ131-22-1, 12P3-											
2ALQ131-22-3											
5.1.1.45 Troubleshooting Receiver											
Processor (RP) 12P3-2ALQ131-22- 2, 12P3-2ALQ131-22-1, 12P3-	*							-	-	-	-
2,12r3-2ALQ131-22-1,12r3- 2ALQ131-22-3											
5.1.1.46 Load and unload pods in											
shipping containers 35E20-4-7-1								-	-	-	-
5.1.1.47 Perform internal											
inspection 00-20-1, 00-20-2, 00-20-		*						-	-	-	-
5, 00-20-7, and 12P3-2ALQ131-22-3											
5.1.1.48 Perform external											
inspection 00-20-1, 00-20-2, 00-20-		*						-	-	-	-
5, 00-20-7, and 12P3-2ALQ131-22-3											
5.1.2 AN/ALM-256(V) INTERMEDIATE LEVEL SUPPORT											
INTERIOR LE LEVEL SUPPORT											

AN/A	LQ 1	31 P		INING RE	QUIREM	IENTS	ı				
	Core	Tasks	<ol> <li>Certifica</li> </ol>	tion For OJT				oficiency Coo ing/ Informat			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3	B 5		C 7
	A	Б	A	В В			L	Skill	Skill	SI	till
	5	7	Tng	Tng	Trainee	Trainer	Certifier	Level (1)	Level (1)	(1)	vel (1)
EQUIPMENT (ILSE)	Level	Level	Start	Complete	Initials	Initials	Initials	Course	CDC	Course	CDC
5.1.2.1 Operational Concept								Α	В	-	-
5.1.2.2 Description								Α	В	_	_
5.1.2.3 Theory								В	В	_	
5.1.2.4 Power-on, boot-up, and											
power-down AN/ALM-256(V) ILSE	*							2b	_	_	_
33D7-13-110-1								25			
5.1.2.5 Inspect, maintain, and											
operate AN/ALM-187A Power	*										
Supply Test Set 33D7-6-315-1 and	_							а	-	-	-
ILSE software											
5.1.2.6 Load/reprogram AN/ALQ-											
131(V) and CAPRE using AN/ALM-	*							2b	_	_	_
256(V) ILSE 33DA112-18-1, ILSE								25			
software, and CAPRE software											
5.1.2.7 Receive and install SERENE											
BYTE/PACERWARE data files update	*										
into AN/ALM-256(V) ILSE AN/ALQ-	*							_	=	-	-
131 Block II System Handbooks (Red Books) and ILSE software											
5.1.2.8 Load AN/ALM-256(V) ILSE											
memory 33D7-13-110-1 and ILSE								_	_	_	_
software											
5.1.2.9 Perform 7-Day Self-test	*										
33D7-13-110-1 and ILSE software	*							2b	-	-	-
5.1.2.10 Perform 14-Day Self-test	*							26			
33D7-13-110-1 and ILSE software								2b	-	-	-
5.1.2.11 Perform 30-Day Self-test	*							b	_	_	_
33D7-13-110-1 and ILSE software											
5.1.2.12 Perform 90-Day Self-test	*							b	_	_	_
33D7-13-110-1 and ILSE software										-	
5.1.2.13 Perform HD-1094 cooler	*										
prior to use inspections 35E10-20-	1							-	-	-	-
5.1.2.14 Perform Antenna Shields											
prior to use / 180-day inspection	*										
33DA85-25-1								_		-	_
5.1.2.15 Troubleshoot and Repair	*							_	_	_	_
C.L.L.120 T. Gab. Confederation Reputit				L	<u> </u>		İ	<u> </u>	]		

AIN/A	2. Core			AINING RE	QUIREM	IENIS		oficiency Cod			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	Sk	C 7 cill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
6 ATTACHMENT 6, ALQ184 POD TRAINING REQUIREMENT (Units that have multiple pods will only upgrade on one pod/station to 5 or 7 level as determined by workcenter supervisor)											
6.1 AN/ALQ-184 ELECTRONIC WARFARE ATTACK POD											
6.1.1 Operational Concept								Α	В	-	-
6.1.2 Description								Α	В	-	-
6.1.3 Theory of Operation								В	В	-	-
6.1.4 Connect AN/ALQ-184) Pod to AN/ALM-233D ASE and associated support equipment 12P3-2ALQ184-82-2 and ASE software								2b	-	-	-
6.1.5 Perform Canister Separation and Reassembly	*							-	I	-	-
6.1.6 Perform Coldplate Removal and Installation	*							2b	-	-	-
6.1.7 Perform AN/ALQ-184 Program Verification Tests (PVT) 12P3-2ALQ184-82-2 and ASE software	*							2b	-	-	-
6.1.8 Perform AN/ALQ-184 Functional Tests F1-F19 12P3- 2ALQ184-82-2 and ASE software	*								-	-	-
6.1.8.1 Perform An/ALQ-184 Functional Tests F1, F2, F4.1, F5, F6, F8								2b			
6.1.9 Perform AN/ALQ-184 System Calibration Tests T1-T9 12P3-2ALQ184-82-2 and ASE software	*								-	-	-
6.1.9.1 Perform AN/ALQ-184 System Calibration Tests T1-T4								2b			
6.1.10 Perform AN/ALQ-184 System Calibration Tests T10 series 12P3-2ALQ184-82-2 and ASE software	*							-	-	-	-
6.1.11 Perform Tests T10.3.5,							_	2b		-	

AIVA	2. Core			AINING RE	QUIKEN	IENIS		oficiency Coo			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	SI	C 7 kill evel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
T10.2, T10.1, and T10.3.6											
6.1.12 Perform AN/ALQ-184											
System Calibration Tests T12 series	*							h			
12P3-2ALQ184-82-2 and ASE								b	-	_	-
software											
6.1.13 Perform AN/ALQ-184											
System Calibration Tests T13-20	*							_	_	_	_
12P3-2ALQ184-82-2 and ASE											_
software											
6.1.14 Perform Tests T13, T14											
FWD/AFT, T18 FWD/AFT, and T19.1								2b	-	-	-
FWD/AFT											
6.1.15 Perform AN/ALQ-184											
System Calibration Tests T21 series	*							_	-	_	-
12P3-2ALQ184-82-2 and ASE											
software											
6.1.16 Perform Test T21.8								2b	-	-	-
6.1.17 Perform AN/ALQ-184											
System Calibration Tests T22, T24,	*							b	-	_	-
T28, T34, and T35 12P3-2ALQ184-											
82-2 and ASE software											
6.1.18 Perform AN/ALQ-184 Hat	*										
Check 12P3-2ALQ184-82-2 and ASE	^							2b	-	-	-
software											
6.1.19 Use Diagnostic Test	*							2b			
Oriented System (DTOS) 12P3- 2ALQ184-82-2 -1 and ASE software								20	_	_	_
6.1.20 Perform advanced											
troubleshooting		*						-	-	-	-
6.1.21 Troubleshoot and repair											
AN/ALQ-184 PVT failures 12P3-	*							_	_	_	_
2ALQ184-82-2-1 and ASE software											
6.1.22 Troubleshoot and repair											
AN/ALQ-184 Functional Test failures	*										
12P3-2ALQ184-82-2-1 and ASE	*							_	-	-	-
software											
6.1.23 Troubleshoot and repair											
AN/ALQ-184 System Calibration	*										
Test failures 12P3-2ALQ184-82-2-1,								_	-	-	_
12P3-2ALQ184-12-2, and ASE											

AIVA	2. Core			TINING RE	QUIKEN.	ILIVIS		oficiency Coo			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	Sk	C 7 till vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
software											
6.1.24 Perform internal inspection of AN/ALQ-184 Pod 00-20-1, 00-20-2, 00-20-7, and 12P3-2ALQ184-82-2		*						-	-	-	-
6.1.25 Perform external inspection of AN/ALQ-184 Pod 00-20-1, 00-20-2, 00-20-7, and 12P3-2ALQ184-82-2		*						-	-	-	-
6.2 PORTABLE AUTOMATED TEST EQUIPMENT CALIBRATOR (PATEC)											
6.2.1 Characteristics								Α	В	-	-
6.2.2 Theory of Operation								Α	В	-	-
6.2.3 Traceability								Α	В	-	-
6.2.4 Perform Calibration of AN/ALM-233D ASE		*									
6.3 AN/ALM-233D AUTOMATIC SUPPORT EQUIPMENT (ASE)											
6.3.1 Operational Concept								Α	В	-	-
6.3.2 Description								Α	В	=	-
6.3.2.1 Theory of Operation								В	В		
6.3.3 Perform AN/ALM-233D ASE Initial power-up, Power-up from Standby, Power-down to Standby, and Declassification 33D7-13-89-1 and 33D7-13-89-1-2	*							2b	-	-	-
6.3.4 Use/maintain AN/ALM-233D ASE and associated support equipment 33D7-13-89-1	*							2b	-	-	-
6.3.5 Perform AN/ALM-233D ASE Daily Self-test 33D7-13-89-1 and ASE software	*							2b	-	-	-
6.3.6 Perform AN/ALM-233D ASE Weekly Self-test 33D7-13-89-1 and ASE software	*							2b	-	-	-
6.3.7 Perform AN/ALM-233D ASE Monthly Self-test 33D7-13-89-1 and ASE software	*							2b	-	-	-
6.3.8 Perform AN/ALM-233D ASE	*							-	-	_	-

AN/A	<u>LQ I</u>	84 P	OD TRA	INING RE	QUIREM	IENTS					
	2. Core	Гasks	<ol><li>Certificat</li></ol>	tion For OJT				oficiency Coo ng/ Informat			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	Sk Le	C 7 till vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
Semi-annual Self-test 33D7-13-89- 1 and ASE software											
6.3.9 Perform Pod Coldplate Liquid Cooler (PCLC) operational checkout 33D7-13-89-1	*							b	-	-	-
6.3.10 Perform Vacuum Fill unit operational checkout 33D7-13-89-1	*							-	-	-	-
6.3.11 Load/Reprogram AN/ALQ- 184 Pod using Operator Support 33D7-13-89-1 and ASE software	*							2b	-	-	-
6.3.12 Display/Change Instrument status using Operator Support 33D7-13-89-1 and ASE software	*							2b	-	-	ı
6.3.13 Perform Advanced Troubleshooting		*						-	-	-	-
6.3.14 Troubleshoot/Repair	*							-	-	-	-
6.3.15 Receive and install SERENE BYTE/PACERWARE data files update into AN/ALM-233D ASE	*							-	_	-	-

AN/ALQ 188A POD TRAINING REQUIREMENTS  2. Core Tasks  3. Certification For OJT  4. Proficiency Codes Used To Indicate  Core Tasks											
	Core 7	Γasks	o. Certifica	ion for OJI				ng/ Informati			
Tasks, Knowledge And Technical References	A	В	A	В	C	D	Е	A 3 Skill Level	B 5 Skill Level	7	C 7 xill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
7 ATTACHMENT 7, ALQ188A POD TRAINING REQUIREMENTS											
7.1 AN/ALQ-188A ECM POD											
7.1.1 Operational Concept								-	Α	-	-
7.1.2 Description								-	Α	-	-
7.1.3 Theory of Operation								ı	ı	-	-
7.1.4 Connect AN/ALQ-188A pod to AN/ALM-256(V) ILSE or GLM 10 and associated support equipment 12P3-2ALQ188-12, AN/ALQ-188A(V) CMS User s Guide, and Local Checklist	*							-	1	-	-
7.1.5 Perform operational checkout and reprogramming of AN/ALQ-188A pod 12P3-2ALQ188-12, AN/ALQ-188A(V) CMS User s Guide, and Local Checklist	*							ı	ı	-	-
7.1.6 Perform internal inspection of AN/ALQ-188A 00-20-1, 00-20-2, 00-20-5, 00-20-7, and 12P3-2ALQ188-12		*						-	-	-	-
7.1.7 Perform external inspection of AN/ALQ-188A 00-20-1, 00-20-2, 00-20-5, 00-20-7, and 12P3-2ALQ188-12		*						-	-	-	-
7.1.8 Perform periodic  Maintenance inspection	*							-	-	-	-
7.1.9 Troubleshoot	*							-		-	
7.1.10 Repair	*							-	-	-	-

AVIONICS FUNDAMENTALS TRAINING REQUIREMENTS

AVIONICS	2. Core			tion For OJT	NG REQU	UIKEME	4. Pro	oficiency Cocing/ Informati			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	Е	A 3 Skill Level	B 5 Skill Level	7	C 7 cill
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
8 AVIONICS FUNDAMENTALS											
8.1 AVIONICS SUPPORT SUBJECTS											
8.1.1 Safety								В	-	-	-
8.1.2 First aid								Α	-	-	-
8.1.3 Electrostatic Discharge (ESD) control								В	I	-	-
8.1.4 Electromagnetic Effects (EMP / EMI)								В	I	-	-
8.1.5 Metric Notation											
8.1.5.1 Powers of ten								В	-	-	-
8.1.5.2 Electrical prefixes								В	-	-	-
8.1.6 Digital Numbering Systems								Α	-	-	-
8.1.7 Common Tools								Α	-	-	-
8.1.8 Technical Publications								Α	-	-	-
8.1.9 Documentation								Α	-	-	-
8.2 Test Equipment											
8.2.1 Use Digital Multimeter								2b	-	-	-
8.2.2 Use Oscilloscope								2b	-	-	-
8.2.3 Wave Generators								Α	-	-	-
8.3 Basic Electricity											
8.3.1 Direct Current (DC)								В	-	-	-
8.3.2 Alternating Current (AC)								В	-	-	-
8.3.3 Resistance Theory								В	-	-	-
8.3.3.1 Measure Resistance								2b	-	-	-
8.3.4 Capacitance Theory								В	-	-	-
8.3.5 Inductance Theory								В	-	-	-
8.4 Electromagnetic Devices											
8.4.1 Transformers								В	-	-	-
8.4.2 Relays And Solenoids											
8.4.2.1 Theory								В	-	-	-
8.4.2.2 Troubleshoot Relays								2b	-	-	-
8.4.3 Motor Theory											
8.4.3.1 DC								Α	-	-	-
8.4.3.2 AC								А	_	-	-

AVIONICS FUNDAMENTALS TRAINING REQUIREMENTS

AVIONICS	2. Core			tion For OJT	NG REQU	JIKEME	4. Pro	oficiency Coo			
Tasks, Knowledge And Technical References	A	В	A	В	C	D	E	A 3 Skill Level	B 5 Skill Level		C 7 till
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
8.4.4 Generator Theory											
8.4.4.1 DC								Α	-	-	-
8.4.4.2 AC								Α	-	-	В
8.4.5 Synchro/Servo								В	-	-	-
8.4.6 Transducer								В	-	-	-
8.5 Solid State Devices											
8.5.1 Theory								Α	-	-	-
8.5.2 Diodes (LED, Zener, etc)								Α	-	-	-
8.5.3 Integrated Circuits (IC)								Α	-	-	-
8.5.4 Operational amplifiers								Α	-	-	-
8.6 Power Supply Circuits											
8.6.1 Theory								В	-	-	-
8.7 Wave Generating Circuits											
8.7.1 Theory								Α	-	-	-
8.8 Digital Logic Circuits											
8.8.1 Theory								Α	-	-	-
8.8.2 Gates								Α	-	-	-
8.8.3 Flip flops								Α	-	-	-
8.8.4 Digital to Analog and Analog								А			
to Digital Converters								^	-	_	-
8.9 Basic Computer & Network											
Fundamentals								Δ.			
8.9.1 Theory								Α	-	-	-
8.9.2 Network Components								Α	-	-	-
8.9.3 Protocols								A	-	-	-
8.9.4 Topologies (Architecture)								Α	-	-	-
8.1 Basic Communications											
8.10.1 Radio Frequency Theory								A	-	-	-
8.10.2 Frequency Spectrum								Α	-	-	-
8.10.3 Modulation (AM/FM)								Α	-	-	-
8.10.4 Demodulation (AM/FM)								Α	-	-	-
8.10.5 Receivers/Transmitters AFI 38-101 / AFPD 38-1								А	-	-	В
8.10.6 Transmission Mediums Theory								А	-	-	-
8.10.7 Waveguides								Α	-	-	-

AVIONICS	FUN]	DAN	IENTAL	S TRAINI	NG REQI	JIREME	NTS				
	2. Core	Γasks	<ol><li>Certifica</li></ol>	tion For OJT				oficiency Coo ng/ Informat			
Tasks, Knowledge And Technical References	A	В	A	В	С	D	E	A 3 Skill Level	B 5 Skill Level	Sk	C 7 xill vel
	5 Level	7 Level	Tng Start	Tng Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(1) CDC	(1) Course	(1) CDC
8.10.8 Data Buses								Α	-	-	-
8.10.9 Fiber Optics								Α	-	-	Α
8.10.10 Coaxial Cables								Α	-	-	-
8.10.11 Antennas								Α	-	-	-
8.11 Assemble Solder Type Connections											
8.11.1 Terminal connections								1b	-	-	-
8.11.2 Mutipin Connector								1b	-	-	-
8.11.3 Coaxial connector								1b	-	-	В
8.11.4 Desolder Procedures								1b	-	-	-
8.12 Assemble Solderless Type Connections											
8.12.1 Coaxial Connector								1b	-	-	-
8.12.2 Multipin Connector								1b	-	-	-
8.12.3 Twin-axial Connector (Data Bus)								1b	-	-	Α
8.12.4 Crimped connection											
8.12.4.1 Terminal Lugs								1b	-	-	-
8.12.4.2 Wire Splice								1b	-	-	-
8.12.5 Shield Terminations								1b	-	-	-
8.13 General Maintenance Practices											
8.13.1 Assemble Mutipin Connector Harness								1b	-	-	-
8.13.2 Secure Cable Harness								1b	ı	-	В
8.13.3 Use Safety Wire								1b	-	-	-
8.13.4 Troubleshooting Procedures											
8.13.4.1 Isolate Wire Open								1b	ı	-	-
8.13.4.2 Isolate Wire Short								1b	-	-	-
8.13.4.3 Isolate Voltage Fault on Multipin Connector Harness AFI 21-101								1b	-	-	Α
8.13.4.4 Isolate Crossed Connection on Multipin Connector Harness								1b	-	-	-

	4. Proficiency Codes Used To Indicate Training/Information Provided			o ion
1. Tasks Knowledge And Technical References	A 3-Skill Level	B 5-Skill Level	C 7-Skill I	
	Course	CDC	Course	CDC

# Attachment 9 – AEROSPACE MAINTENANCE CRAFTSMAN TRAINING REQUIREMENTS

- NOTE 1: Columns 2 and 3 are deleted from this STS because all items are SUBJECT KNOWLEDGE LEVEL only and require no certification.
- NOTE 2: Users are responsible for annotating training references to identify current references pending STS revision.
- NOTE 3: This attachment is to be used in conjunction with other attachments in applicable CFETPs.
- NOTE 4: Personnel must complete CDC requirements on all MDSs/attachments.
- NOTE 5: This attachment is to be used as a correlation document for the 2AX7X, 7-level Aerospace Maintenance Craftsman, CDCs.

	CDCs.	
9.1.	MAINTENANCE PHILOSOPHY AND POLICY	
9.1.1.	Aircraft and Equipment Readiness TR: AFI 21-101	A
9.1.2.	Maintenance Concept TR: AFI 21-101 and AFI 21-129	A
9.1.3.	Reliability and Maintainability (R&M) TR: AFI 21-101, AFI 21-118 and TO 00-35D-54	A
9.1.4.	Operating Instructions (OI) TR: AFI 21-101 and AFI 33-360	A
9.1.5.	Maintenance Information Systems (MIS) TR: AFCSM 21-556 Volume 2, AFI 21-101, AFI 21-116, and TO 00-20-2	В
9.1.6.	Maintenance Metrics TR: AFI 21-103 and AFTTP 3-3	A
9.1.7.	Maintenance Repair Priorities TR: AFI 21-101	A
9.1.8.	Historical Aircraft and Equipment Records TR: AFI 21-101 and TO 00-20-1	A
9.2.	MAINTENANCE ORGANIZATION KEY LEADER RESPONSIBILITIES	
9.2.1.	Wing Commander (WG/CC) TR: AFI 21-101 and AFI 38-101	A
9.2.2.	Wing Vice Commander (WG/CV) TR: AFI 21-101 and AFI 38-101	A
9.2.3.	Maintenance Group Commander (MXG/CC) TR: AFI 21-101 and AFI 38-101	A
9.2.4.	Maintenance Group Deputy Commander (MXG/CD) TR: AFI 21-101	A
9.2.5.	MXG Superintendent (SUPT) TR: AFI 21-101	A
9.2.6.	Squadron Commander (SQ/CC) TR: AFI 21-101	A
9.2.7.	Maintenance Operations Officer (MOO)/Maintenance Superintendent (MX SUPT) TR: AFI 21-101	A
9.2.8.	Flight Commander/Flight Chief TR: AFI 21-101	A
9.2.9.	AMU OIC/Superintendent (SUPT) TR: AFI 21-101	A
9.2.10.	Section NCOIC/Chief TR: AFI 21-101	В
9.2.11.	Production Superintendent (Pro Super) TR: AFI 21-101	A
9.3.	FUNCTIONS OF MAINTENANCE OPERATIONS SQUADRON (MOS)	
9.3.1.	Maintenance Operations Flight (MOF) TR: AFI 21-101	A

		4. Proficiency Codes Used To Indicate Training/Information Provided					
1. Tasks	Knowledge And Technical References	A 3-Skill Level 5-Skill Level		7-Skill			
		Course	CDC	Course	CDC		
9.3.2.	Maintenance Training Flight (MTF) TR: AFI 21-101 and AFI 36-2232				A		
9.3.3.	Programs and Resources Flight TR: AFI 21-101				A		
9.4.	FUNCTIONS OF AIRCRAFT/HELICOPTER MAINTENANCE SQUADRON (AMXS/HMXS)						
9.4.1.	Aircraft Maintenance Unit (AMU) TR: AFI 21-101				A		
9.4.2.	Flightline Expediter TR: AFI 21-101				A		
9.4.3.	Aircrew and Maintenance Debrief Section TR: AFI 21-101				A		
9.4.4.	Aircraft Section TR: AFI 21-101				A		
9.4.5.	Specialist Section TR: AFI 21-101				A		
9.4.6.	Weapons Section TR: AFI 21-101				A		
9.4.7.	Support Section TR: AFI 21-101				A		
9.5.	FUNCTIONS OF MAINTENANCE SQUADRON (MXS)						
9.5.1.	Accessories Flight TR: AFI 21-101				A		
9.5.2.	Aerospace Ground Equipment (AGE) Flight TR: AFI 21-101				A		
9.5.3.	Armament Flight TR: AFI 21-101				A		
9.5.4.	Avionics Flight TR: AFI 21-101				A		
9.5.5.	Fabrication Flight TR: AFI 21-101				A		
9.5.6.	Maintenance Flight TR: AFI 21-101				A		
9.5.7.	Munitions Flight TR: AFI 21-101				A		
9.5.8.	Propulsion Flight TR: AFI 21-101				A		
9.5.9.	Test, Measurement, and Diagnostic Equipment (TMDE) Flight TR: AFI 21-101				A		
9.6.	MAINTENANCE TRAINING						
9.6.1	Types of Training TR: AFI 36-2232 and the ETCA site located at: <a href="https://etca.randolph.af.mil/">https://etca.randolph.af.mil/</a>				A		
9.6.2.	Training Documentation TR: AFI 21-101, AFI 36-2201 and AFI 36-2232				A		
9.6.3.	Training Business Area (TBA) TR: https://www.my.af.mil/imdsltpa/IMDSTWeb/ActionServlet				В		
9.6.4.	Special Certification Rosters TR: AFI 21-101				A		
9.6.5.	Maintenance Qualification Program (MQP) TR: AFI 21-101, AFI 36-2232 and AFPD 10-9				A		
9.6.6.	Training Management TR: AFI 36-2201, AFI 36-2232, AFI 21-101 and AETCI 36-2601						
9.6.6.1.	Training Forecast				A		

	2AX7X CDC TRAINING REQUIREMENTS		es Used To Information		
1. Tasks	Knowledge And Technical References	A 3-Skill Level	B 5-Skill Level	7-Skill	
		Course	CDC	Course	CDC
9.6.6.2.	Training Request				A
9.6.6.3.	Master Training Plan				A
9.7.	PERSONNEL RESOURCE MANAGEMENT				
9.7.1.	Unit Manpower Document (UMD) and Unit Personnel Manpower Roster (UPMR) TR: AFI 36-2110, AFI 38-201 and AFTTP 3-3				A
9.7.2.	Personnel Utilization TR: AFI 21-101				A
9.8.	MAINTENANCE SUPPLY				
9.8.1.	Logistics Readiness Squadron (LRS) Supply Support TR: AFI 21-101, AFMAN 23-110 (Vol. 1) and AFTTP 3-3				A
9.8.2.	Readiness Spares Packages TR: AFI 21-101, AFMAN 23-110 and AFTTP 3-3				A
9.8.3.	Consumables Management TR: AFI 21-101, AFMAN 23-110 and AFTTP 3-3				A
9.8.4.	Equipment Items TR: AFI 21-101, AFMAN 23-110 and AFMAN 23-220				A
9.8.5.	Supply Assets Requiring Functional Check, Calibration, or Operational Flight Programming TR: AFI 21-101, AFMAN 23-110 and TO 00-20-3				A
9.8.6.	Precious Metals Recovery Program TR: AFI 21-101 and AFMAN 23-110				A
9.8.7.	Supply Points TR: AFI 21-101 and AFMAN 23-110				A
9.8.8.	Local Manufacture TR: AFI 21-101				A
9.8.9.	Repair Cycle Assets TR: AFI 21-101 and AFMAN 23-110				A
9.8.10.	Supply Management Products TR: AFI 21-101 and AFMAN 23-110				A
9.8.11.	Tail Number Bins (TNB) TR: AFI 21-101 and AFMAN 23-110				A
9.8.12.	Maintenance Repair/Supply Delivery Priorities TR: AFI 21-101 and AFMAN 23-110				A
9.8.13.	Classified Assets TR: AFI 21-101, AFJI 31-102, TO 00-5-1 and TO 00-20-1				Α
9.8.14.	Hazardous Materials TR: AFI 21-101, AFI 32-7086 and AFI 90-821				A
9.8.15.	Supply Deficiency and Discrepancy Reporting TR: AFI 21-101, AFMAN 23-110 and TO 00-35D-54				В
9.8.16.	Special Handling of Supply Assets Containing Hazardous Materials TR: AFI 24-203, AFI 32-7086, AFMAN 23-110, TO 42B2-1-3, and TO 6J3-1-1				A
9.8.17.	Maintenance Supply Liaison TR: AFI 21-101 and AFMAN 23-110				A
9.9.	TECHNICAL ORDER MANAGEMENT				
9.9.1.	Technical Orders Distribution Process TR: AFI 21-101, AFI 63-101, AFTTP 3-3 and TO 00-5-1				A
9.9.2.	Time Compliance Technical Orders (TCTO) TR: TO 00-5-15				A
9.9.3.	Technical Order Change Process TR: AFI 21-303				A
9.9.4.	Technical Order Waivers TR: AFI 21-101 and AFI 21-303				A
9.10.	MAINTENANCE REQUIREMENTS AND PROGRAMS				

		4. Proficiency Codes Used To Indicate Training/Information Provided					
1. Tasks	Knowledge And Technical References	A 3-Skill Level	B 5-Skill Level	C 7-Skill			
		Course	CDC	Course	CDC		
9.10.1.	Cannibalization Program				Α		
	TR: AFI 21-101 and AFTTP 3-3				A		
9.10.2.	Restricted Maintenance Areas				Α		
	TR: AFI 21-101				A		
9.10.3.	Red Ball Maintenance				Α		
	TR: AFI 21-101				Α		
9.10.4.	Aircraft/Equipment Impoundment Program				Α		
	TR: AFI 21-101				A		
9.10.5.	Foreign Object Damage (FOD) Program				Α		
	TR: AFI 21-101, AFI 36-2232 and AFTTP 3-3				A		
9.10.6.	Dropped Object Prevention (DOP) Program				Α		
	TR: AFI 21-101				Λ		
9.10.7.	Tool Management				Α		
	TR: AFI 21-101				Λ		
9.10.8.	Tool Accountability				Α		
	TR: AFI 21-101				Λ		
9.10.8.1.	Marking and Tool Identification				Α		
	TR: AFI 21-101				Λ		
9.10.8.2	Locally Manufactured, Developed, or Modified Tools and Equipment				Α		
	TR: AFI 21-101				А		
9.10.8.3.	Lost Item/Tool Procedures				Α		
	TR: AFI 21-101				Α.		
9.10.9.	Maintenance Recovery Team				Α		
	TR: AFI 21-101				Λ.		
9.11.	QUALITY ASSURANCE (QA) PROGRAM						
9.11.1.	Maintenance Standardization and Evaluation Program (MSEP)						
	TR: AFI 21-101 and AFTTP 3-3				A		
9.11.2.	QA Product Improvement Program						
	TR: AFI 21-101				A		
9.11.3	Configuration Management (CM) and Modification Management						
	TR: AFI 21-101				A		